



SERVICE  
MANUAL

**2275**

**marantz**

**model 2275**

*Stereophonic Receiver*

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## INTRODUCTION

This service manual was prepared for use by Authorized Warranty Stations and contains service information for the Marantz Model 2275 Stereophonic Receiver.

Servicing information and voltage data included in this manual are intended for use by knowledgeable and experienced personnel only. All instructions should be read carefully. No attempt should be made to proceed without a good understanding of the operation of the receiver.

The parts list furnishes information by which replacement parts may be ordered from the Marantz Company. A simple description is included for parts which can usually be obtained through local suppliers.

### 1. SERVICE NOTES

As can be seen from the circuit diagram, the chassis of the Model 2275 consists of the following units. Each unit mounted on a printed circuit board is described within the square enclosed by a bold dotted line on the circuit diagram.

|   |                            |
|---|----------------------------|
| 1. FM Front End .....   | Mounted on P.W. Board P100 |
| 2. FM IF Amplifier .....  | Mounted on P.W. Board P200 |
| 3. AM Tuner Unit .....  | Mounted on P.W. Board P150 |
| 4. MPX Stereo Decoding Amplifier .....                                    | Mounted on P.W. Board P300 |
| 5. Phono Amplifier .....  | Mounted on P.W. Board P400 |
| 6. Power Amplifier .....  | Mounted on P.W. Board P700 |
| 7. Power Supply and Protection Relay Circuit .....                        | Mounted on P.W. Board P800 |
| 8. Pre and Tone Amplifier .....   | Mounted on P.W. Board PE01 |
| 9. Dolby FM Level Amplifier .....   | Mounted on P.W. Board PC01 |
| 10. Muting, Speaker, Loudness, Power, Hi and Low<br>Filter Switches ..... | Mounted on P.W. Board PT01 |
| 11. Dolby FM, Mono L, R, Multipath, and Tape<br>Monitor Switches .....    | Mounted on P.W. Board PS01 |
| 12. Function Lamps .....  | Mounted on P.W. Board PY01 |
| 13. Dial Lamps .....  | Mounted on P.W. Board PZ01 |
| 14. Muting Level and Antenna Attenuator .....                             | Mounted on P.W. Board PU01 |

### 2. AM TUNER

The AM Tuner section in the 2275 consists of one IC, including an RF amplifier, local oscillator, mixer, IF amplifier, and detector, and three transistors, one of which comprises a signal strength indication amplifier and the other two comprise a detected audio signal amplifier.

All components except the tuning capacitor and ferrite bar antenna are mounted on the printed circuit board P150.

The AM signal induced in the ferrite bar antenna is fed to the RF amplifier input (Pin ⑫) and amplified to the level required for overcoming conversion noise, thus giving good S/N performance. The tuned circuit inserted in each of the output and input circuits of the RF amplifier assures very high image and spurious rejection performance.

The amplified and selected AM signal is then applied to the Mixer input. The local oscillator voltage is injected to the other Mixer input (Pin ⑯) through a capacitor C157. Then, both AM signal and local oscillator output voltage are mixed and converted into the 455kHz intermediate frequency. The resulting IF signal is applied to the IF transformer L153 consisting of one ceramic filter and two tuned circuits.

The output of L153 is fed to the IF amplifier input (Pin ⑨) through a coupling capacitor C162 and amplified to a sufficient level to drive the detector. The detected audio signal derived from pin ⑦ is filtered and amplified, and the final audio output is obtained from the collector of H153 and applied to the TAPE MONITOR OUT jacks through the function switch S001.

The DC component of the detected IF signal is used as an AGC voltage to control the emitter

current of the RF amplifier through the AGC amplifier incorporated in the IC. A part of the DC component is also fed from J157 to the signal strength indication amplifier H154. The output appearing at the collector of H154 is level adjusted by R178, indicated on the signal strength meter M002.

### 2.1 Suggestions for AM Tuner trouble shooting

Check for a broken AM bar antenna. Next, attempt to tune stations by rotating the fly-wheel tuning knob slowly and observe the AM signal strength meter for deflection. If the signal strength meter gives a deflection at several frequencies received, a probable failure exists after the AM detector stage. Next, connect an oscilloscope to J161 and check for audio signals with the tuning meter deflected. If the signal strength meter does not deflect, check the local oscillator circuit. Normal local oscillator output voltage at the hot end of the oscillator tuning capacitor is about 1.5 to 3 volts, varying with the tuning capacitor position. When measuring the local oscillator output voltage use an RF VTVM, no common circuit tester will give a correct indication, due to loading. If the local oscillator output voltage is normal, check all voltage distribution in the AM circuits by using a DC VTVM and compare the measured values with those given in the schematic diagram.

## 3. FM TUNER

The FM Tuner section in the Model 2275 is divided into four functional blocks: FM Front End, IF Amplifier & Detector, Muting Control and Multiplex Stereo Decoding Circuit.

An FM signal from an FM antenna is fed to antenna coil L101 from the balun coil. The signal is then applied to the FET RF amplifier which in turn feeds its output to the FET Mixer H102 through a triple tuned, high selectivity circuit. The FET Mixer converts its input signal into a 10.7MHz intermediate frequency and amplifies it at the same time. H103 is the local oscillator, the output of which is injected into the source of the FET Mixer. The injection voltage is approximately 700mV. The 10.7MHz front end output is fed to the IF amplifier from J105.

The IF amplifier unit consists of eight IF amplifier stages, one AGC amplifier stage and an audio buffer amplifier stage. Eight ceramic filters are also used to obtain high selectivity, and four symmetrical diode limiter stages are also employed for best limiting characteristics, improved capture ratio and good AM suppression.

A part of the FM Front End output is fed to and rectified by the AGC amplifier H209, and the rectified output is fed back to the gate of the FET RF amplifier from J208 to decrease the gain with increased signal strength.

The signal required for multipath indication is obtained from five IF amplifier stages through coupling capacitors C211, C214, C223, C252 and C228 respectively and is rectified by four full wave rectifiers diodes H221 through H228. These AM components of the FM signal are mixed and amplified by transistors HS01 and HS02 and the output is again rectified to obtain DC current required for actuating the signal strength meters, which is used for multipath indication as well.

The IF signal is fed to the Detector Amplifier H208. The detected audio output is fed to the buffer amplifier H210 and its output is fed to: (a) the noise amplifier H310 through resistor R378 and capacitor C333, (b) the QUADRADIAL OUTPUT Jack on the rear panel through resistor R379, and (c) the MPX stereo decoding IC (H321) through R301 and H301.

The DC current developed at the third winding of the discriminator transformer is directly connected to the FM center tuning meter.

### 3.1 Audio Muting and Stereo mode auto-selecting circuit

100% solid state muting is incorporated in the Model 2275. Three inputs control the muting function. The first is related to signal strength, the second to the noise level at the detector, and the third is derived from the DC component of the detector output. These inputs are properly matrixed and gated to provide muting free from noise and transients.

The first input of DC voltage obtained by rectifying a part of the IF signal from H205 and H206 is fed to the base of H308 and turns it on. This level is predetermined by the muting threshold level control. When H308 is turned on, H309 is turned off, allowing the emitter-collector resistance to be increased and the collector voltage to be raised to about 9V. The raised collector voltage increases the gate bias voltage and turns on switching FET H301, decreasing the source-drain resistance to near zero and allowing the audio signal applied at the source to flow to the decoding IC, pin ②.

When the input signal is lower than the predetermined level, the DC output obtained is small and can not turn on H308, thus H308 remains off. This turns H309 on, decreasing its collector voltage and turning H301 off. Thus, no audio signals can pass through FET H301. This is the fundamental principle of the muting operation but for more elaborate muting, the second and third inputs are necessary.

The second input is used to protect the muting operation and MPX stereo lamps from misoperation due to undesirable noise. High frequency noise included in the detected audio signal is separated by a small capacitor, C333, and amplified by noise amplifier transistor H310. Its output is rectified by the two diodes. The rectified DC output is proportional to the noise component in the audio signal.

When there is excessive noise in the audio signal such as obtained with a station incorrectly tuned, the rectified DC output turns transistor H311 on, decreasing the emitter-collector resistance to zero. This lowers H309 collector voltage to 0. Therefore, H301 is turned off and any audio signal having excessive high frequency noise can not go through the FET's source-drain path. Transistor H317, also, turns off when transistor H309 or H311 turns on. This turns on transistor H303 connected to pin ⑧ on the MPX decoding IC. Pin ⑧ is therefore grounded and puts the IC in the monaural mode of operation. This prevents stereo misoperation due to undesirable noise when the FM tuning is incorrect.

The third input is obtained from the FM discriminator circuit. The DC output, so called "S" curve, is applied to the gate of H312 through resistor R281 and voltage divider network (R361 & R362). The DC output is zero with a station correctly tuned in, but will vary from a negative to a positive value, or vice versa, when the tuning point is deviated toward either a higher or lower frequency from correct tuning.

When the DC output is increased to a greater positive level than predetermined, the increased source potential of H312 turns transistor H315 on. (This means the collector of H309 is grounded, H301 turns off, H317 turns off, and H303 turns on. This grounds pin ⑧ of the MPX stereo decoding IC, therefore the decoder is set in the monaural mode of operation and the stereo indicator lamp turns off. When the DC output is increased to a greater negative level than predetermined, the decreased source potential turns off H313 which turns H314 on. (This means the collector of H309 is grounded). The subsequent changes are exactly the same as that just described above.

Thus, when the tuning is shifted or deviated to certain frequencies at which undesirably noisy side responses are produced, both muting and monaural/stereo switching transistors H303 are operated automatically to provide muting.

With the station correctly tuned, the bias current of FET H312 is adjusted so that both transistor H314 and H315 are not turned on, resulting in no effect on transistor H309.

### 3.2 MPX Stereo Decoding Circuit

The stereo composite signal from the buffer amplifier undergoes a phase compensation by R301 and C301, is fed through the muting FET H301 to the input terminal pin ② of the MPX stereo decoding IC H321. This IC uses PLL (Phase Locked Loop) technology and decodes the left and right stereo signals, which become available at pins ④ and ⑤, respectively. These decoded left and right stereo audio signals are introduced through a low pass filter consisting of L301 to L304 and C311 to C320 for elimination of undesirable residual switching signals and then through a de-emphasis network consisting of R325, R326, C321 and C322 to a npn-pnp direct

coupled audio amplifier, where the signals are amplified and fed to output terminals J311 and J313. From these terminals, the audio signals are fed to the TAPE MONITOR OUT jacks through the function switch. Figure 1 presents an internal block diagram showing the functions of the PLL MPX stereo decoding IC HA1156. The input stereo composite signal, amplified by the audio amplifier, is delivered to the phase detectors PD-1 and PD-2. A part of the stereo composite signal is also delivered to the stereo decoder section. The VCO (Voltage Control Oscillator) produces a free run oscillation of approximately 76kHz with the time constant determined by capacitor C305 and resistors R311 and R312 connected on the outside to pin ⑯. The VCO output has its frequency divided down to 19kHz through the two frequency divider stages (DIV-1, DIV-2), and is returned to the phase detector PD-1, which contains two input terminals designed to produce an output in proportion to the product of the two input signals. The signal fed to one PD-1 input is a 19kHz square wave formed through frequency division of the 76kHz VCO output signal by the two frequency divider stages DIV-1 and DIV-2, and the 19kHz pilot signal included in the stereo composite signal, as a reference signal is fed to the other PD-1 input. Therefore, the output of PD-1 which has gone through the low pass filter, LPF-1, provides DC output voltage in proportion to the phase variance between the two inputs. This DC output voltage is amplified by the DC amplifier, and is supplied to the 76kHz VCO as a control voltage. This means that the output frequency and phase of the VCO have been phase-locked to the input pilot signal. The 38kHz sub-carrier reproduced by the PLL, as stated above, is delivered through the stereo switch to the stereo decoder section as a switching signal, thus driving the decoder stage. One of the inputs of PD-2 is given the 19kHz resulting from the frequency division completed by DIV-1 and DIV-3, whereas the other input receives the 19kHz output contained in the composite signal, and the output is provided with a DC component in proportion to the amplitude of the pilot signal.

This DC output is furnished through LPF-2 to the trigger amplifier which drives the stereo indicator lamp and stereo switch. Therefore, insufficient supply of the pilot signal results in failure to light the stereo indicator and to turn on the stereo switch located in the path of the 38kHz switching signal, thereby avoiding a wrong stereo operation.

H303 located off pin ⑧ is a switching transistor for automatic monaural-stereo mode selection. When the intensity of an incoming signal from an FM station is weaker than a predetermined level, H303 is turned on and pin ⑧ is grounded, thereby developing a condition for monaural reception. For forced monaural operation, switching the MODE switch to "MONO", turns on H303 with the positive bias voltage applied to the base, and pin ⑧ is

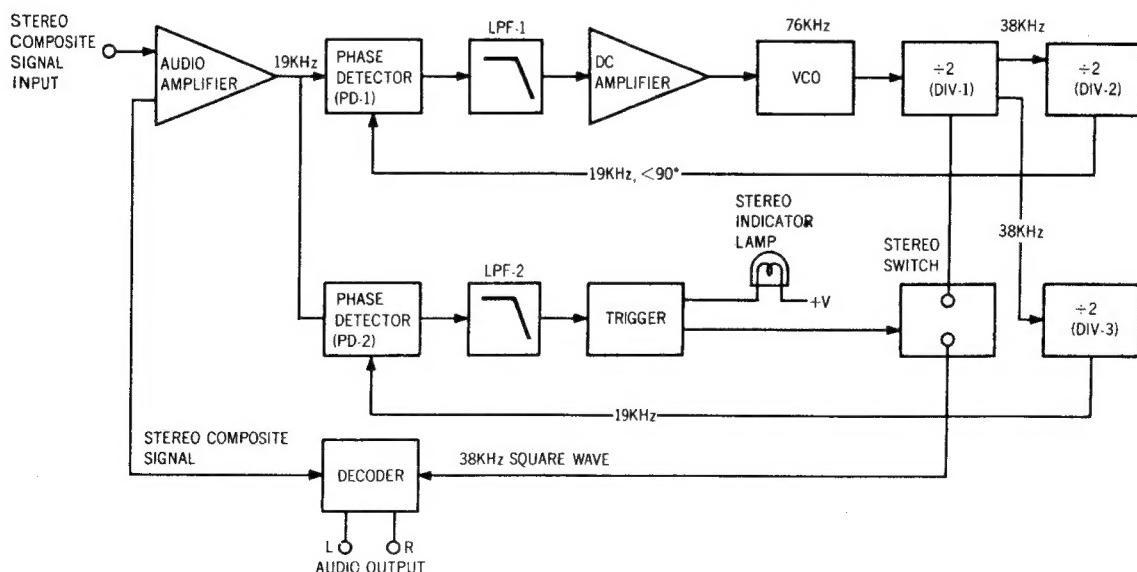


Figure 1. Block Diagram of the HA1156

grounded, thereby establishing monaural operation. Transistor H302, connected externally to pin ⑯, is intended to kill the 76kHz VCO (oscillator) which interferes with AM signals during the reception of an AM stations. When the function switch is set to "AM" position, a positive bias is applied to the base of H302, turning it on and pin ⑯ is grounded. Thus, the oscillation of the VCO is stopped, ending the interference with AM reception.

### 3.3 Suggestion for Troubleshooting the FM Tuner

#### 3.3.1 Symptom: No FM Reception

Rotate the fly-wheel tuning knob slowly and observe the FM signal strength meter. If the signal strength meter deflects at several frequencies received, the tuner and IF circuits preceding the discriminator circuit are functioning. When no reading is obtained on the meter, check the FM local oscillator circuit, using an RF VTVM. The normal local oscillator voltage is approximately 500mV at the tuning capacitor, depending on the tuning capacitor position. If the local oscillator voltage is present, then check all voltage distribution in the FM Front End and IF amplifier unit comparing them with those shown in the circuit diagram. When the signal strength meter deflects but no sound is obtained, check the audio circuits using a high sensitivity oscilloscope.

#### 3.3.2 Symptom: No Stereo Separation

First be sure the "MODE" switch is in the normal 2 CH position. Connect an FM RF signal generator with output modulated by a stereo pilot signal to the rear FM antenna terminals, and check for stereo light operation. If not turned on, check for 19kHz VCO output signal (J310), using an oscilloscope and frequency counter.

## 4. PHONO AND TONE AMPLIFIERS

Program source signals from the PHONO jacks on the rear panel are fed to the input circuit of the Phono Amplifier through the selector switch, and the output of the Phono Amplifier is fed to another section of the selector switch. This amplifier provides a gain of 40dB.

All signals selected by the function switch (S001-2R, 4R) are fed to the balance and volume controls through the MONO (L, R) and Hi-Blend switches.

Signals properly attenuated by the volume control are led to the tone amplifier and are subjected to tone control by the bass, mid and treble controls, and high and low cut filters.

These processed audio signals are then fed to the PRE OUT jacks on the rear panel.

## 5. POWER AMPLIFIER

The signal from the tone amplifier is applied to the differential amplifier (base of H701) through the coupling capacitor C701. The differential amplifier provides a high input impedance, and its collector output (H702) is connected to the base of H703 which in turn feeds its output to the following stages: H711 through the network of R720, C711 and R721, and H712 through the network of R720, C712 and R722. The outputs of H711 and H712 are fed to H713 and H714, respectively. H001 and H002 are power transistors used in a complementary configuration and mounted on heat sinks.

To maintain overall amplifier stability and linearity, degenerative feed back is utilized throughout the amplifier. This feedback is also necessary to reduce distortion to within a specified limit. The RC network of R724 and C709 conditions the feed back signal for audio signals. R723 and C708 also comprise a feedback loop provided to obtain a stable zero DC offset voltage at the speaker output terminals. R741 is a potentiometer resistor to adjust the DC offset voltage to zero.

A dynamic bias is applied to the bases of driver transistors H713 and H714. This dynamic bias circuit is comprised of H709, H710 and R742. This provides a variable base bias for the driver transistors that automatically maintains the proper base voltage with temperature change.

The temperature sensitive biasing components of the dynamic circuit are thermally coupled to the heat sink which mount the power transistors.

## 6. POWER PROTECTION CIRCUIT

A protection circuit for the amplifier is provided by sensing resistor networks and two switching transistors. When the output transistors are over-driven, the current increase through the power output transistors cause an increased current flow through R740. This increased voltage potential is applied to the base of H708 through resistor R736 and H705 turning H708 on. Since the emitter of H708 is connected through R727 to the base of H713, the base of H713 is by-passed to the common center point through the emitter-collector path of H708. Thus, the input signal to H713 is restricted to the value which maintains the operation of the output stage within the safe area. Resistors R730 and R729 with H717 works as a sensing network. When the center voltage (collector voltage of power transistors) is excessively increased to a positive value by certain malfunctions, the voltage applied to the base of H705 turns H708 on, thus removing the drive from H713 and the power transistor. For the other half cycle of the driving signal, the same operating principle is applied as described above, through H706 and H707.

## 7. SPEAKER PROTECTOR RELAY CIRCUIT

The speaker protection circuit consisting of H805, H806, H807, and associated parts protects the speaker systems against turn "ON" and "OFF" transients. This circuit is so designed that no sound is heard for the first three to five seconds after the power switch is turned on by the time constant circuit consisting of C809 and R813. This circuit also protects the speaker system against difficulties due to poor DC balance between the speaker system terminals by instantly operating the relay and cutting off the speaker system from the circuit. When a positive DC off balance voltage is developed between speaker terminals by possible defects such as defective power transistors, short-circuits, or a broken potentiometer R741 protection is instantly available. Since the base of H805 is connected to the speaker terminal, it is turned on by this offset voltage developed, turning transistors H806 and H807 off, thus cutting off the relay and disconnecting the speaker from the output circuit. When a negative offset voltage is developed, this voltage directly turns H806 and H807 off, giving the same protection as above.

The circuit also protects the speaker system from possible damage when the amplifier is over-driven by very low frequencies such as 7Hz or less.

## 8. SUGGESTIONS FOR TROUBLESHOOTING THE POWER AMPLIFIER

### 8.1 Excessive line consumption

- a. Check for shorted rectifier H005; also check C006 and C007.
- b. Check for shorted transistors H713 and H714, H001, H002, H003, and H004, and check H709. Check bias diode H710. Check L004 for shorts.

**CAUTION: BECAUSE THE DRIVER AND OUTPUT STAGES ARE DIRECT COUPLED, SEVERAL COMPONENTS MAY FAIL AS A DIRECT RESULT OF A SINGLE INITIAL COMPONENT FAILURE. IF A SHORTED TRANSISTOR OR ZENER DIODE IS FOUND, OR CONTROL OR BIAS DIODE, BE SURE TO CHECK THE REMAINING DRIVER AND OUTPUT COMPONENTS FOR SHORTS OR OPEN CIRCUITS BEFORE REENERGIZING THE AMPLIFIER.**

### 8.2 No Line Consumption or Zero Bias

- a. Check line cord, fuse, transistors H709, H001, H002, H003, and H004, and bias diode H710.
- b. Check for open rectifier H005 or open L004.

## 9. TEST EQUIPMENT REQUIRED FOR SERVICING

Table 1 lists the test equipment required for servicing the Model 2275 Receiver.

| Item  | Manufacturer and Model No.  | Use  |
|---|---|--|
| AM Signal Generator                           |   | Signal source for AM alignment.                            |
| Test Loop                                     |   | Used with AM Signal generator.                             |
| FM Signal Generator                           | Less than 0.2% distortion   | Signal source for FM alignment.                            |
| Stereo Modulator                              | Less than 0.2% distortion   | Stereo separation alignment and trouble shooting.          |
| Frequency Counter                             |   | MPX Oscillator adjustment (VCO).                           |
| Audio Oscillator                              | Weston Model CVO-100P, less than 0.02% residual distortion is required. | Sinewave and squarewave signal source.                     |
| Oscilloscope                                  | High sensitivity with DC horizontal and vertical amplifiers.            | Waveform analysis and trouble shooting, and ASO alignment. |
| VTVM  | With AC, DC range RF type   | Voltage measurements.                                      |
| VTVM Circuit Tester                           |   | Trouble Shooting.  |
| AC Wattmeter                                  | Simpson, Model 390  | Monitors primary power to Amplifier.                       |
| AC Ammeter                                    | Commercial Grade (1-10A)  | Monitors amplifier output under short circuit condition.   |
| Line Voltmeter                                | Commercial Grade (0-150VAC)   | Monitors potential of primary power to amplifier.          |
| Variable Autotransformer (0-140VAC, 10 amps.) | Powerstat, Model 116B   | Adjusts level of primary power to amplifier.               |
| Shorting Plug                                 | Use phono plug with 600 ohm across center pin and shell.                | Shorts amplifier input to eliminate noise pickup.          |
| Output Load (8 ohms, 1%, 100W)                | Commercial Grade  | Provides 8-ohm load for amplifier output termination.      |
| Output Load (4 ohms, ±1%, 100W)               | Commercial Grade  | Provides 4-ohm load for amplifier output termination.      |

Table 1. Test Equipment Required for Servicing

## 10. AM ALIGNMENT PROCEDURES

### 10.1 AM IF Alignment

1. Connect a sweep generator to J153 and an alignment scope to the test point ⑧.
2. Rotate each core of IF transformer L153 for maximum height and flat top symmetrical response.

### 10.2 AM Frequency Range and Tracking Alignment

1. Set AM signal generator to 515kHz. Turn the tuning capacitor fully closed (place the tuning pointer at the low end.) and adjust the oscillator coil L152 for maximum audio output.
2. Set the signal generator to 1650kHz. Place the tuning pointer in the high frequency end and adjust the oscillator trimmer on the oscillator section of the tuning capacitor for maximum audio output.
3. Repeat Step 1 and 2 until no further adjustment is necessary.

4. Set the generator to 600kHz and tune the receiver to the same frequency and adjust a slug core of the AM ferrite rod antenna and RF coil L151 for maximum output.
5. Set the generator to 1400kHz and tune the receiver to the same frequency and adjust both trimming capacitors of the antenna and RF sections of the tuning capacitor for maximum output.
6. Repeat Step 4 and 5 until no further adjustment is necessary.

Note: During tracking alignment reduce the signal generator output as necessary to the lowest workable signal to avoid AGC action.

#### **10.3 AM Signal Strength Meter Adjustment**

Set the AM Signal generator to 1000kHz with 5K $\mu$ V, and adjust R178 so that the signal strength meter reads 80% of full scale deflection.

### **11. FM ALIGNMENT PROCEDURES**

1. Connect an FM signal generator to the FM ANTENNA terminals and an oscilloscope and an audio distortion analyzer to the TAPE MONITOR OUT jacks on the rear panel.
2. Set the generator to 87.0MHz and adjust its output to about 3 to 5 $\mu$ V. Place the tuning pointer at the low frequency end by rotating the tuning knob and adjust the core of oscillator coil L105 for maximum audio output.
3. Set the generator to 109.0MHz and provide about 3 to 5 $\mu$ V output. Rotate the tuning knob and place the tuning pointer at the high frequency end and adjust the trimming capacitor C106 for maximum output.
4. Repeat Steps 2 and 3 until no further adjustment is necessary.
5. Set the generator to 90MHz and tune the receiver to the same frequency. Decrease the signal generator output until the audio output level decreases with the decreasing generator output. Adjust the antenna coil L101, RF coils L102, L103, and L104, and IF transformer L106 for minimum audio distortion.
6. Set the generator to 106MHz and tune the receiver to the same frequency. Adjust the trimming capacitors of antenna and RF tuning circuits for minimum distortion (C102, C103, C104, C105).
7. Repeat Steps 5 and 6 until no further adjustment is necessary.
8. Adjust the secondary core (upper) of the discriminator transformer L201 until the center tuning meter pointer indicates center on noise (no signal applied). Set the generator to 98MHz and increase its output level to 1K $\mu$ V and tune the receiver to the same frequency so that the center tuning meter pointer indicates center. Adjust the primary core (lower) of L201 for minimum distortion.
9. Set the generator to 98MHz and increase its output to 100K $\mu$ V. Adjust R374 so that the signal strength meter reads 90% of full scale deflection.

### **12. STEREO SEPARATION ALIGNMENT**

1. Set the FM signal generator to provide 1K $\mu$ V output at 98MHz. Tune the receiver to the same frequency so that the center tuning meter pointer indicates center. Then turn off the modulation of the generator, connect a frequency counter to the test point J310 (point ©) and adjust R311 so that the frequency counter precisely reads 19kHz.
2. Modulate the generator with a stereo composite signal consisting of only L or R channel (of course, the pilot signal must be included).
3. Adjust the trimming resistor R301 for maximum and same separation in both channels.

### **13. MUTING CIRCUIT ALIGNMENT**

1. Connect a VTVM to the center terminal of potentiometer with R363 and adjust R363 until the meter reads 0.75V DC no RF input signal.



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2. Set the FM signal generator to provide  $1K\mu V$  at 98MHz and accurately tune the receiver to the same frequency.
3. Turn the MUTING pushswitch on. Shift the FM signal generator frequency higher and lower and note both higher and lower shifted frequencies at which undesirable audio side responses are muted out. Adjust the R363 so that the same shifted frequencies mute the undesirable side responses.
4. Adjust R362 for preferred frequency shift at which the muting circuit operates.

#### **14. FM DOLBY LEVEL ADJUSTMENT**

1. Set the FM SG to provide a 400Hz, 50% modulated 98MHz mono signal, at  $1K\mu V$  output. Precisely tune the receiver to 98MHz.
2. Depress the FM DOLBY pushswitch, and adjust RC01 and RC02 until the outputs of both channels are 580mV.

#### **15. AUDIO ADJUSTMENTS**

1. 35V B+ voltage adjustment (Power Supply)

Connect a DC voltmeter between the pins J804 and J805, and adjust the trimming resistor R806 for 35V DC.

2. Main Amplifier DC offset adjustment.

Connect a DC voltmeter with 0.5 or 1V range across the speaker terminals and adjust the trimming resistor R741 for "zero" DC output on the meter.

Repeat the same procedure for the other channel.

Note: During this alignment no load should be connected to the speaker terminals.

3. Idle-current adjustment

Connect a VTVM between pins J707 and J708 (or T.P.'s J711 and J712). Next, rotate the trimming resistor R742 fully counterclockwise, then rotate it clockwise until the VTVM reads 10mV DC (25mA).

Repeat the same procedure for the other channel.

Note: During this alignment no load should be connected to the speaker terminals.

4. Re-check the DC offset voltage per procedure 2 and if any DC output is observed on the DC voltmeter, adjust R741 again for "zero" output.

5. Phono-amplifier adjustment

Connect an oscilloscope to the TAPE MONITOR OUT jacks and an audio signal generator to the PHONO jacks. Place the selector switch in the PHONO position. Increase the 1kHz audio signal level gradually until a slight clipping on top of the sine-wave is observed on the oscilloscope. Adjust the trimming resistor R408 for equal clipping level.

For the other channel, adjust R409.

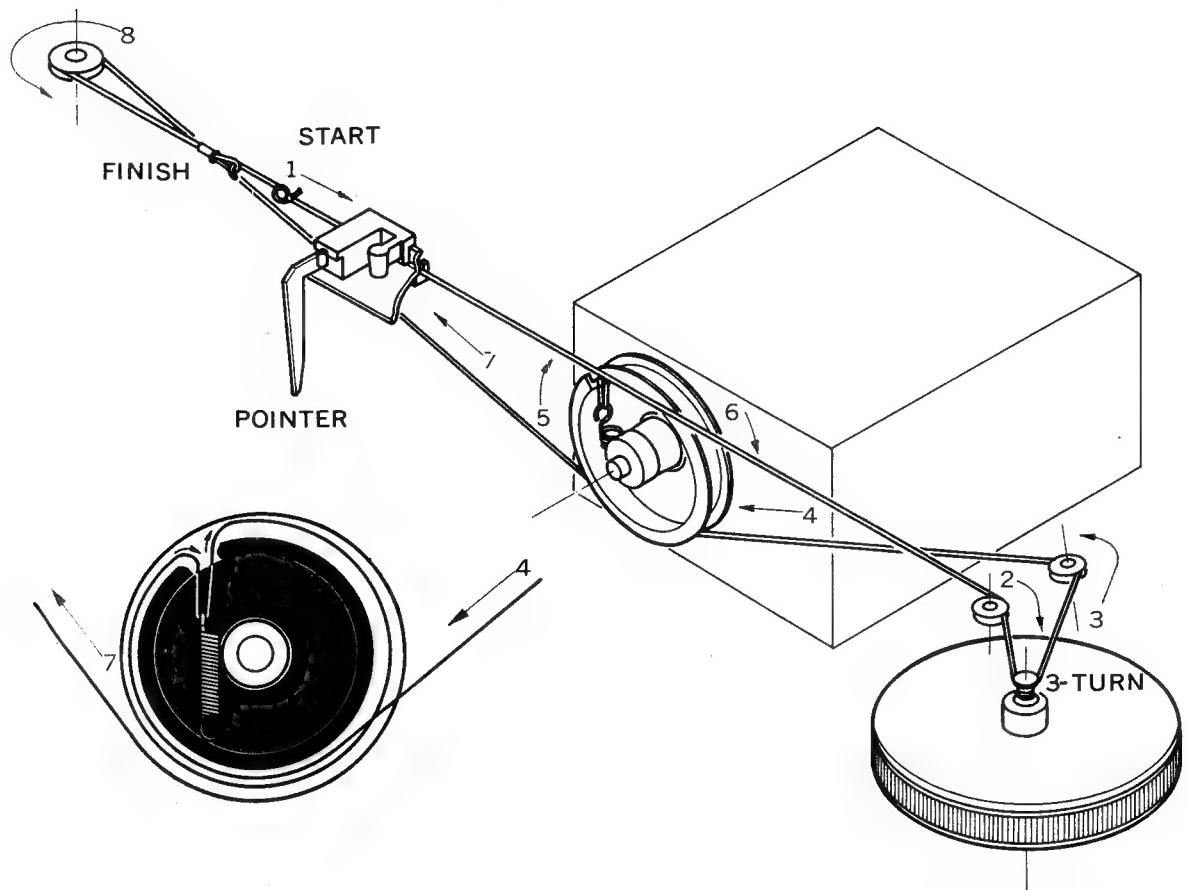


Figure 2. Dial Stringing

**marantz**

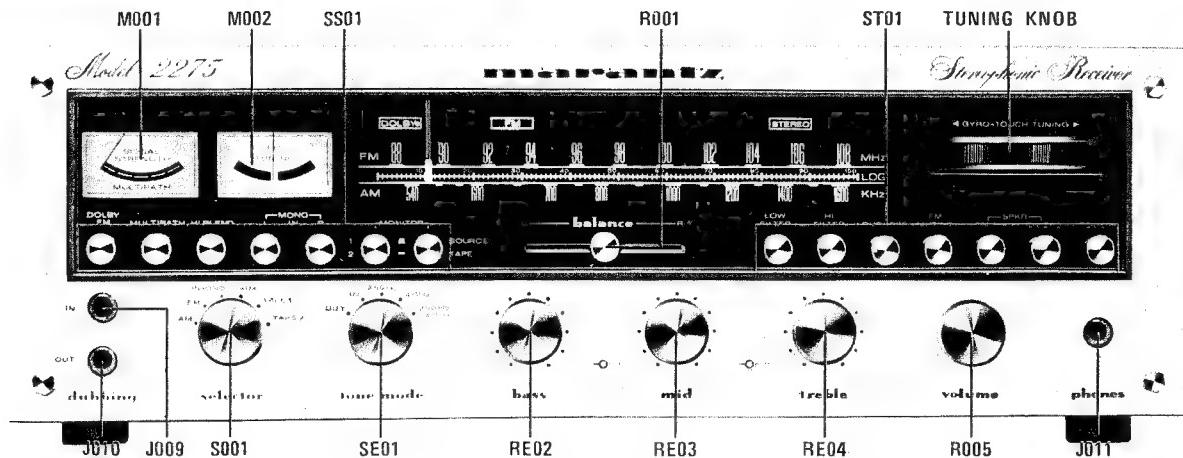


Figure 3. Front Panel Adjustments and Component Locations

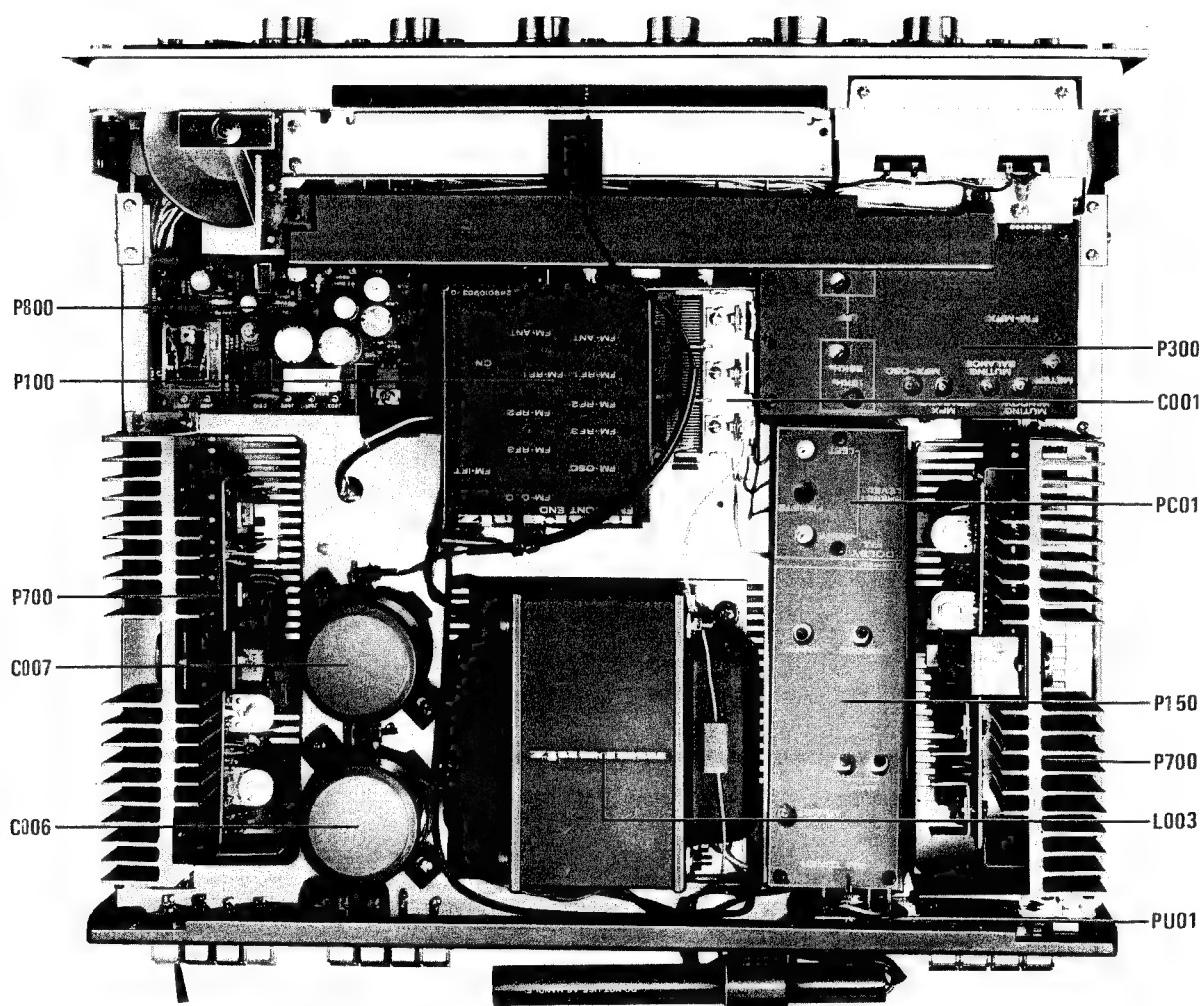


Figure 4. Main Chassis Component Locations (Top View)

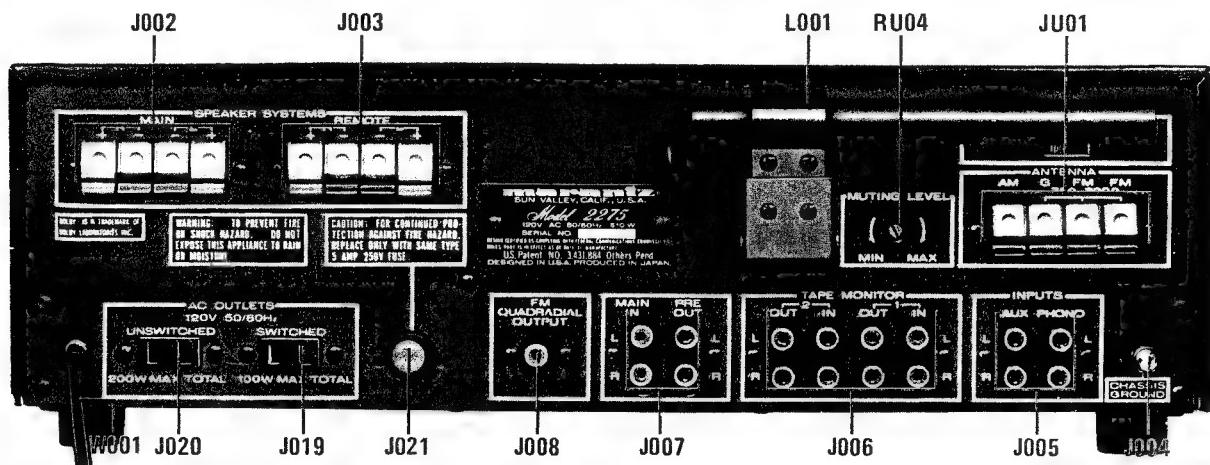


Figure 5. Rear Panel Jacks and Component Locations

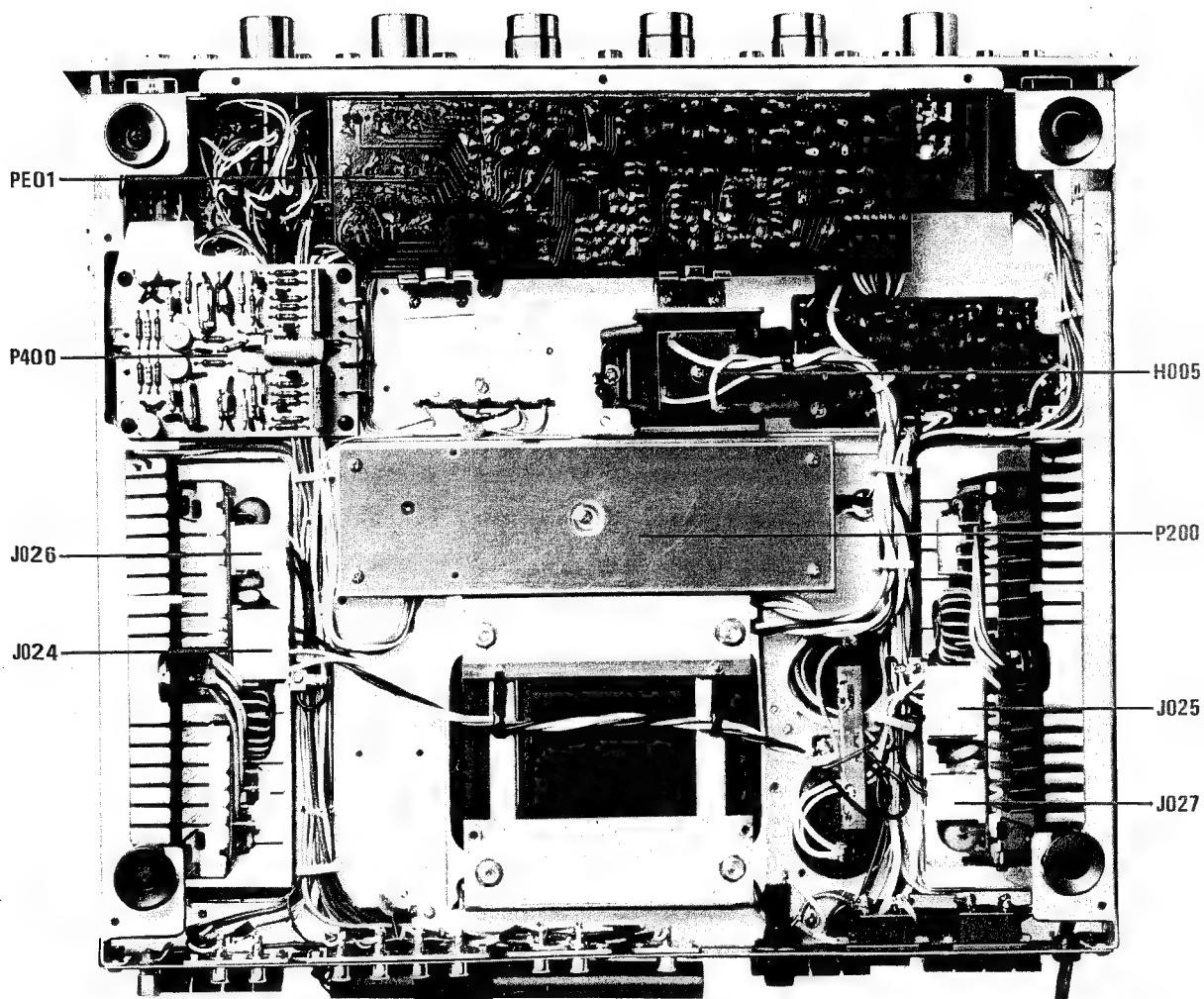


Figure 6. Main Chassis Component Locations (Bottom View)

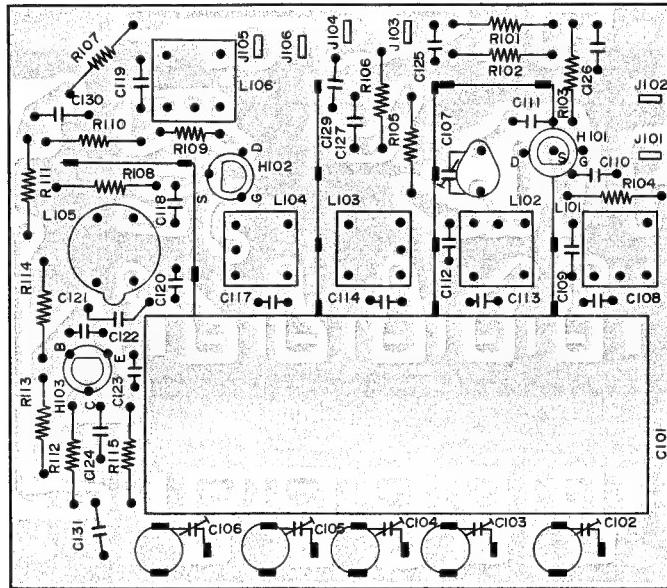


Figure 7. FM Front End Assembly P100 Component Locations

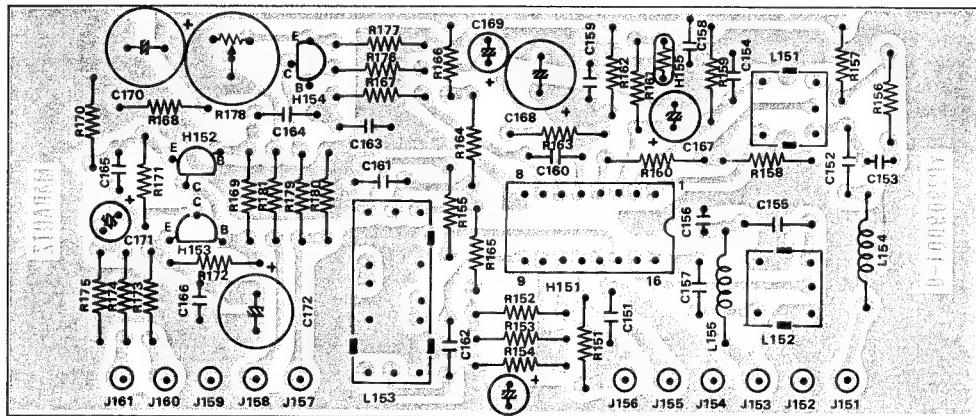


Figure 8. AM Tuner Assembly P150 Component Locations

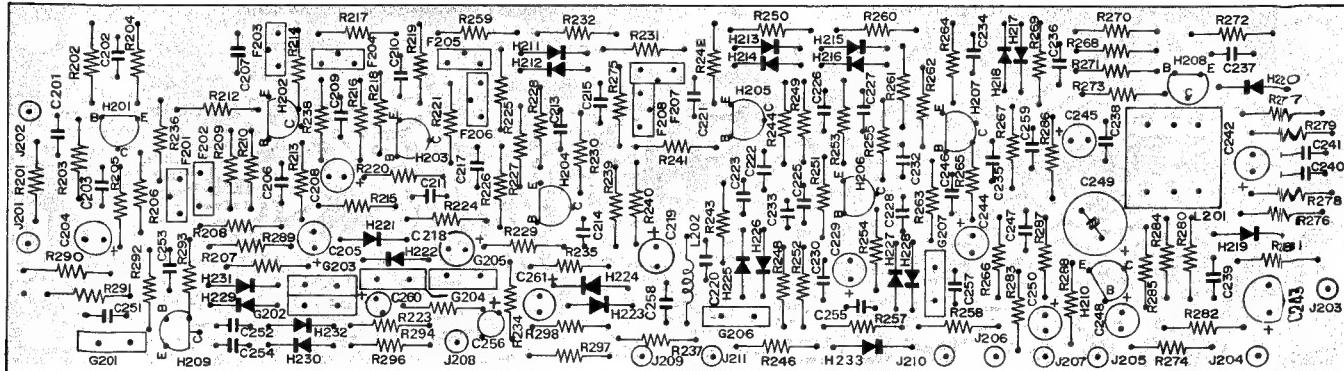
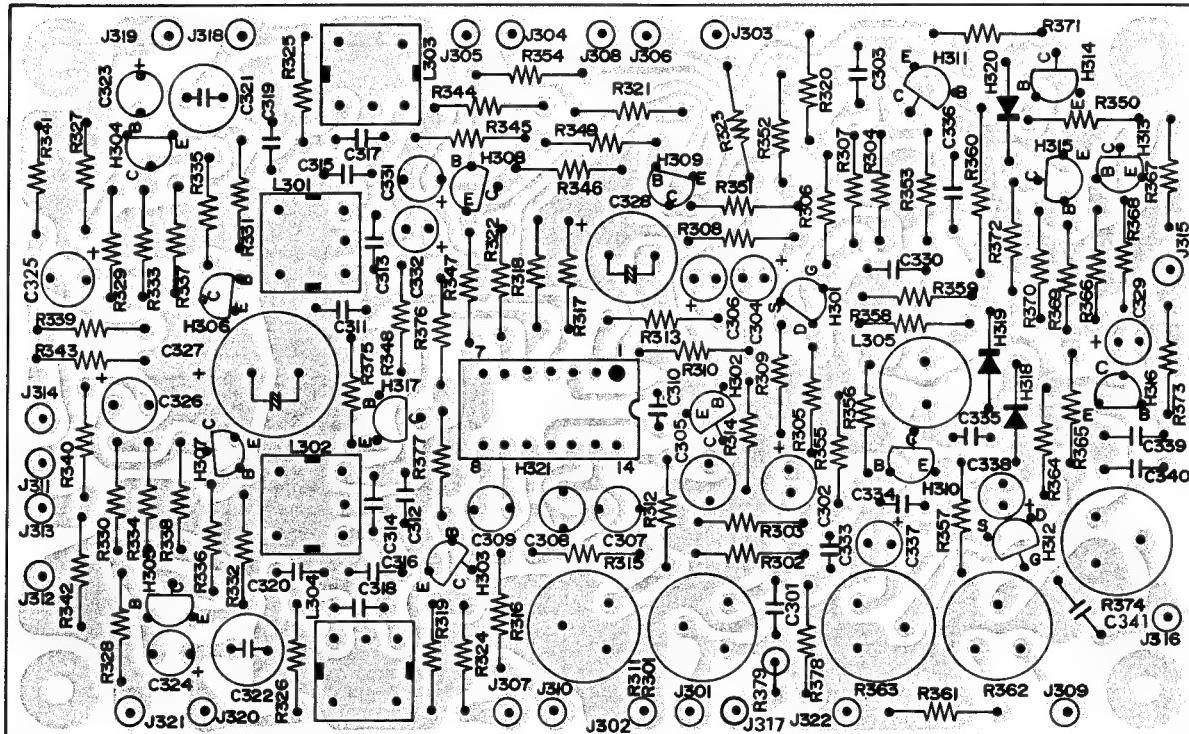
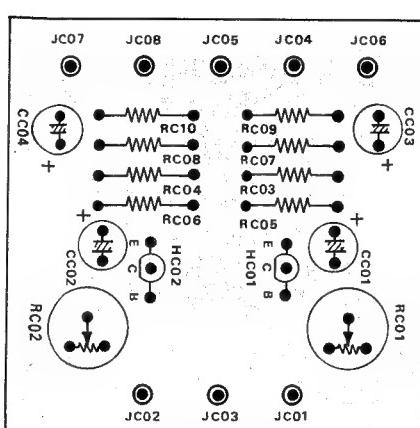


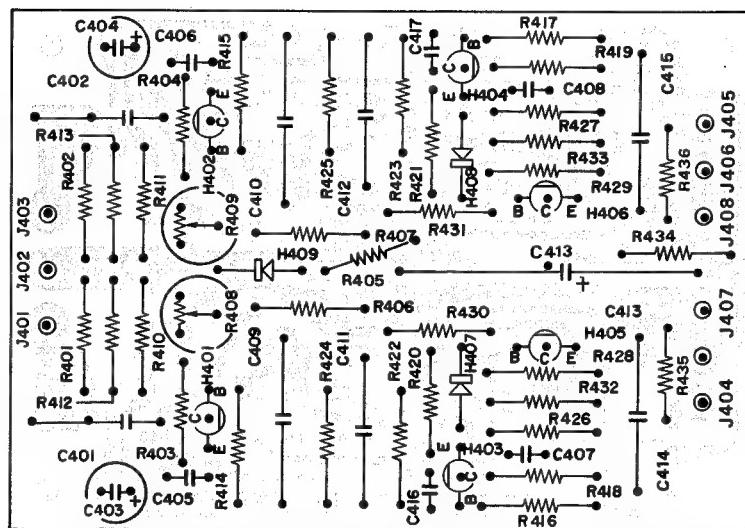
Figure 9. FM IF Amplifier Assembly P200 Component Locations



**Figure 10. MPX Stereo Decoding Amplifier Assembly P300 Component Locations**



**Figure 11. Dolby FM Level Amplifier Assembly PC01 Component Locations**



**Figure 12. Phono Amplifier Assembly P400 Component Locations**

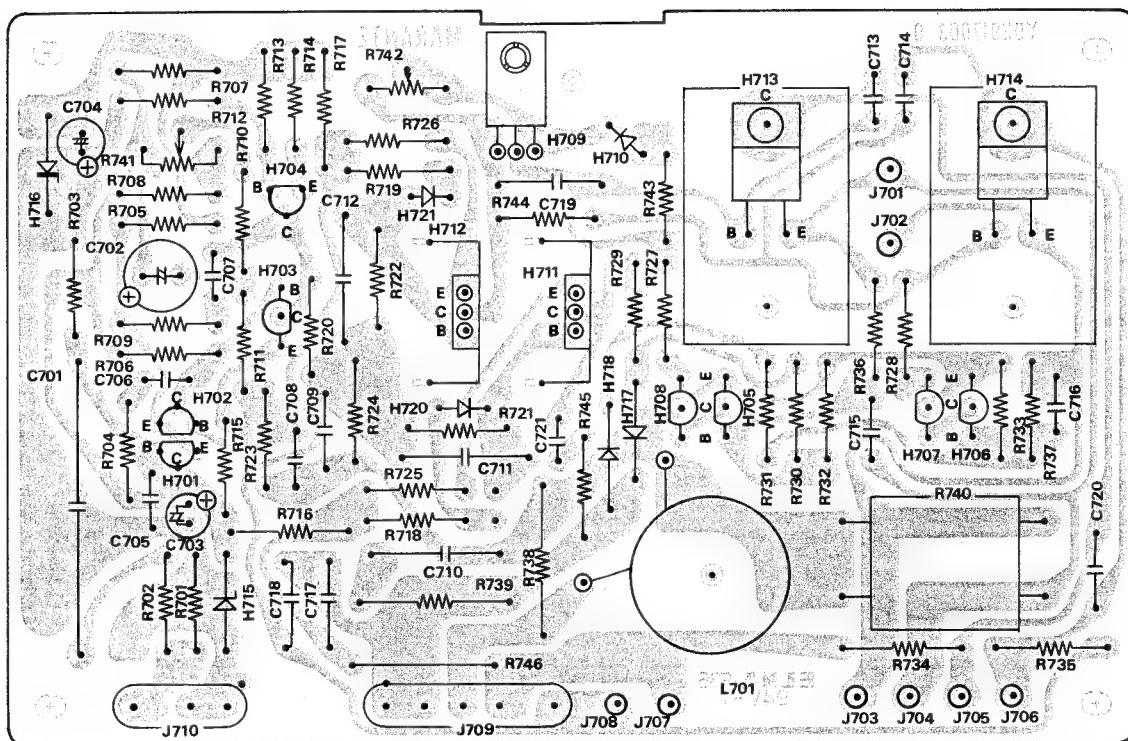


Figure 13. Power Amplifier Assembly P700 Component Locations

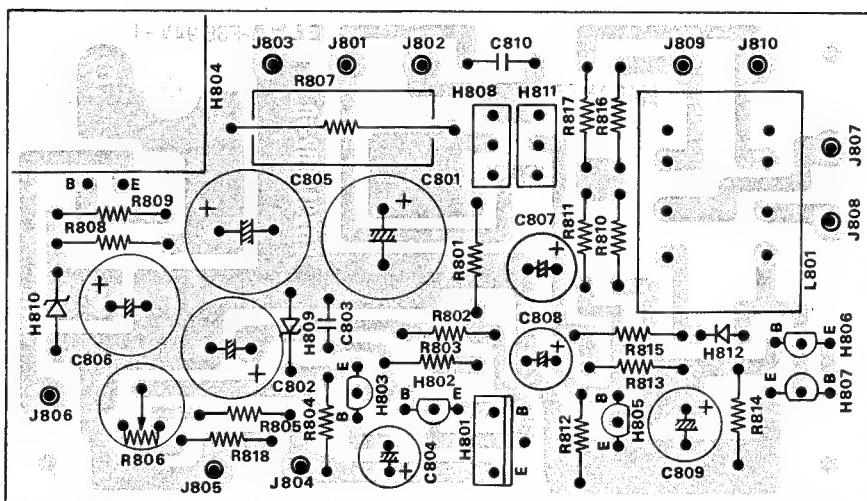


Figure 14. Power Supply and Protection Relay Circuit Assembly P800 Component Locations

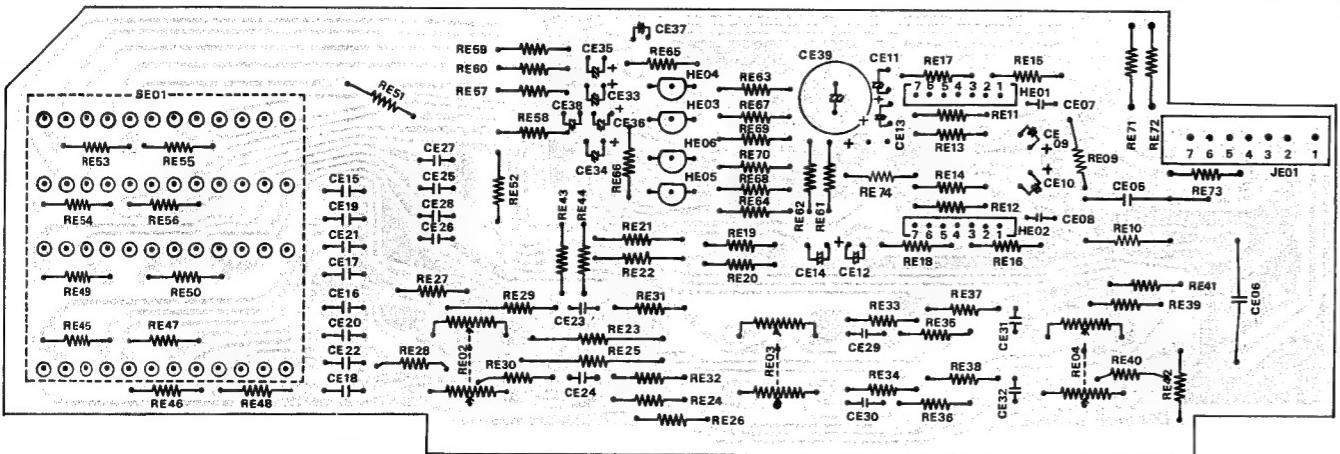


Figure 15. Pre and Tone Amplifier Assembly PE01 Component Locations

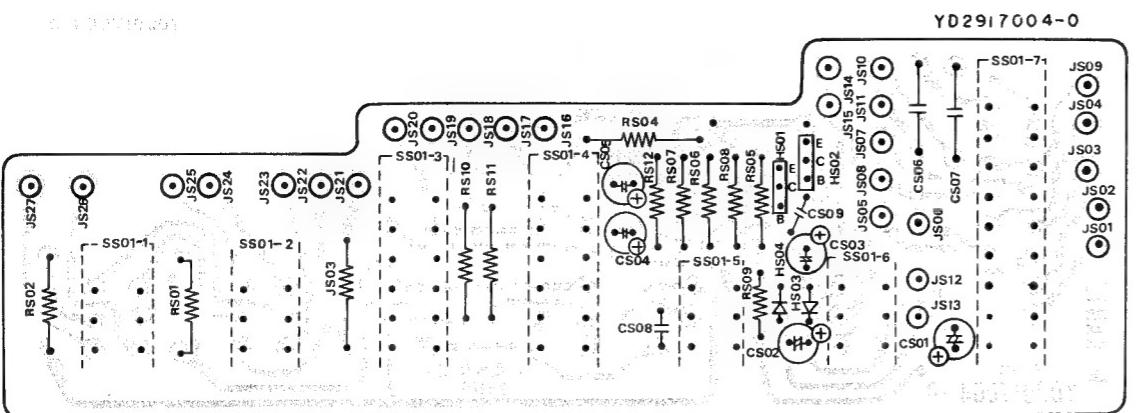


Figure 16. Dolby FM, Mono L, R, Multipath and Monitor Switches Assembly PS01 Component Locations

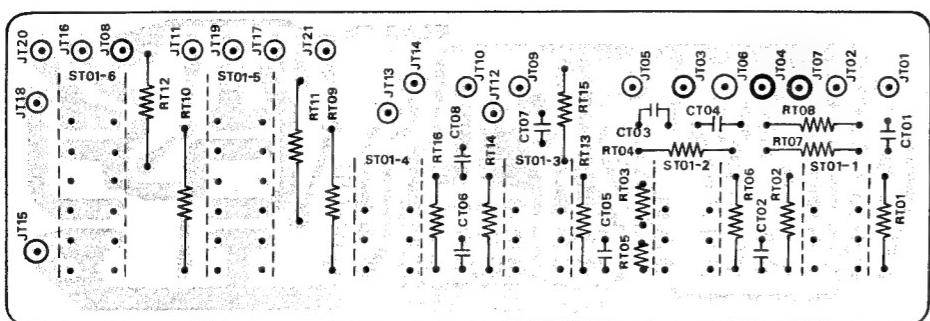


Figure 17. Muting, Speaker, Loudness, Power, Hi and Low Filter Switches PT01 Component Locations

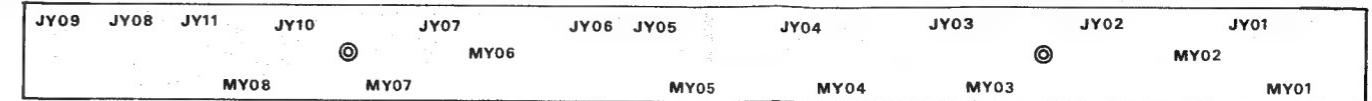


Figure 18. Function Lamps Assembly PY01 Component Locations

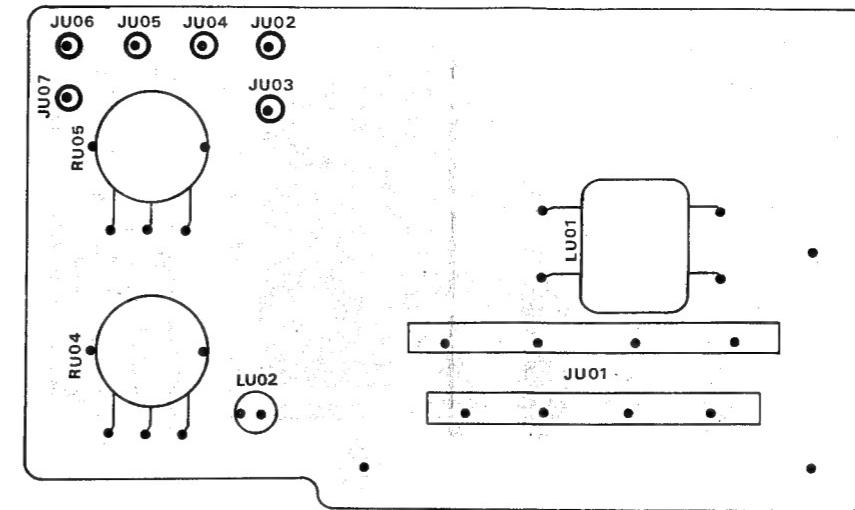


Figure 19. Muting Level and Antenna Attenuator Assembly PU01 Component Locations

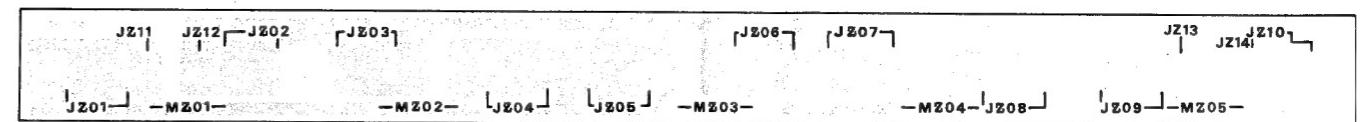
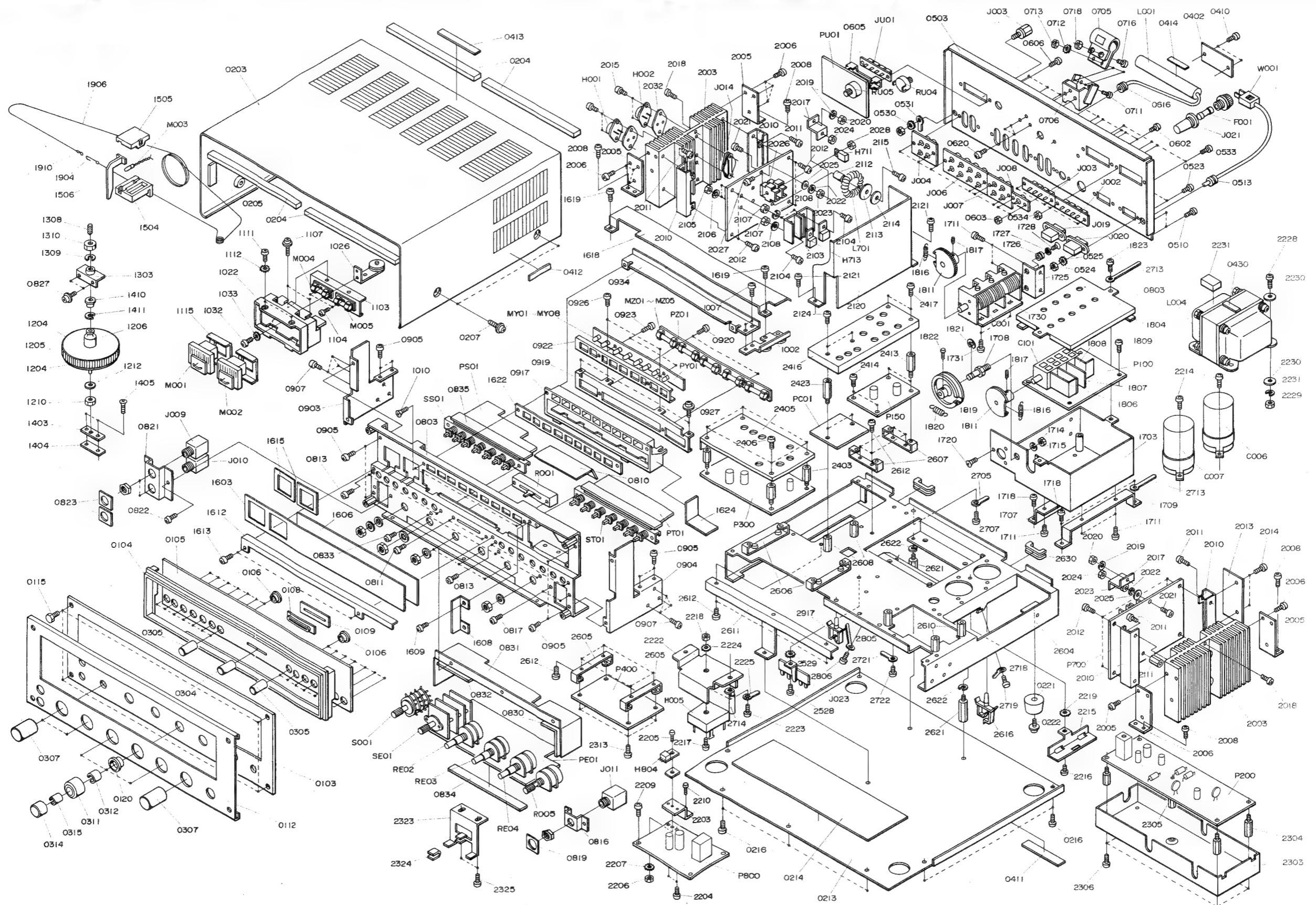


Figure 20. Dial Scale Illuminator Assembly PZ01 Component Locations



**Figure 21. Exploded Mechanical Diagram**

## PARTS LIST

U ..... U.S.A.  
E ..... Europe

| REF.<br>DESIG. | U  | E  | PART NO.  | DESCRIPTION                     | REF.<br>DESIG. | U | E | PART NO.  | DESCRIPTION                   |
|----------------|----|----|-----------|---------------------------------|----------------|---|---|-----------|-------------------------------|
| A              | 1  | 1  | 291706340 | Front Panel Assembly            | C101           | 1 | 1 | CA5000001 | P100-CAPACITORS               |
| 0103           | 1  | 1  | 291706301 | Escutcheon                      | C102           | 1 | 1 | CT1100001 | Variable, FM 5 GANG           |
| 0104           | 1  | 1  | 285340101 | Frame                           | C103           | 1 | 1 | CT1100001 | Trimming, 1.5~11.5PF NPO      |
| 0105           | 1  | 1  | 291715801 | Window                          | C104           | 1 | 1 | CT1100001 | Trimming, 1.5~11.5PF NPO      |
| 0106           | 14 | 14 | 288625901 | Bush                            | C105           | 1 | 1 | CT1100001 | Trimming, 1.5~11.5PF NPO      |
| 0108           | 1  | 1  | 285425901 | Bush                            | C106           | 1 | 1 | CT1100001 | Trimming, 1.5~11.5PF NPO      |
| 0109           | 1  | 1  | 291510701 | Sheet                           | C107           | 1 | 1 | CT1100002 | Trimming, 1.5~11.5PF NPO      |
| 0112           | 1  | 1  | 291705301 | Cover                           | C108           | 1 | 1 | DD1615001 | Ceramic, 15PF ±10%, 50V       |
| B              | 3  | 3  | 281815440 | Knob Assembly                   | C109           | 1 | 1 | DK1710201 | Ceramic, 0.001μF ±20%, 50V    |
| 0311           | 3  | 3  | 281815404 | Knob                            | C110           | 1 | 1 | DK1810301 | Ceramic, 0.01μF +100%,-0%,50V |
| 0312           | 3  | 3  | 71400149Q | Spring                          | C111           | 1 | 1 | DD1105001 | Ceramic, 5PF ±0.5PF           |
| C              | 3  | 3  | 281815441 | Knob Assembly                   | C112           | 1 | 1 | DK1710201 | Ceramic, 0.001μF ±20%         |
| 0314           | 3  | 3  | 281815405 | Knob                            | C113           | 1 | 1 | DD1615001 | Ceramic, 15PF ±10%            |
| 0315           | 3  | 3  | 71400159Q | Spring                          | C114           | 1 | 1 | DD1620001 | Ceramic, 20PF ±10%            |
| D              | 1  | 1  | 285327340 | Fly Wheel Assembly              | C115           | 1 | 1 | DD1001002 | Ceramic, 1.0PF ±0.25PF        |
| 1204           | 2  | 2  | 257706302 | Escutcheon                      | C116           | 1 | 1 | DD1600601 | Ceramic, 0.6PF ±10%           |
| 1205           | 1  | 1  | 257727301 | Fly Wheel                       | C117           | 1 | 1 | DD1620001 | Ceramic, 20PF ±10%            |
| 1206           | 1  | 1  | 285311201 | Shaft                           | C118           | 1 | 1 | DK1710201 | Ceramic, 0.001μF ±20%         |
| 1210           | 1  | 1  | 53110603E | Hexagon Nut                     | C119           | 1 | 1 | DK1710301 | Ceramic, 0.01μF ±20%          |
| 1212           | 1  | 1  | 54020601E | Flat Washer                     | C120           | 1 | 1 | DD1620003 | Ceramic, 20PF ±10%            |
| E              | 1  | 1  | 291510340 | Pointer Assembly                | C121           | 1 | 1 | DD1210006 | Ceramic, 10PF ±10%            |
| 1504           | 1  | 1  | 291510301 | Pointer                         | C122           | 1 | 1 | DD1615003 | Ceramic, 15PF ±10%            |
| 1505           | 1  | 1  | 291510302 | Pointer                         | C123           | 1 | 1 | DD1615003 | Ceramic, 15PF ±10%            |
| 1506           | 1  | 1  | 281810302 | Pointer                         | C124           | 1 | 1 | DK1710301 | Ceramic, 0.01μF ±20%          |
| M003           | 1  | 1  | IN1008030 | Lamp                            | C125           | 1 | 1 | DK1810301 | Ceramic, 0.01μF +100%,-0%     |
| F              | 1  | 1  | 120200640 | Hook Assembly                   | C126           | 1 | 1 | DK1810301 | Ceramic, 0.01μF +100%,-0%     |
| 1904           | 1  | 1  | 120225801 | Hook                            | C127           | 1 | 1 | DK1710301 | Ceramic, 0.01μF ±20%          |
| 1906           | 1  | 1  | 72080802A | String                          | C129           | 1 | 1 | DK1710301 | Ceramic, 0.01μF ±20%          |
|                |    |    |           |                                 | C130           | 1 | 1 | DK1710301 | Ceramic, 0.01μF ±20%          |
|                |    |    |           |                                 | C131           | 1 | 1 | DK1710301 | Ceramic, 0.01μF ±20%          |
|                |    |    |           |                                 |                |   |   |           | P100-COILS & TRANSF.          |
|                |    |    |           |                                 | L101           | 1 | 1 | LA1027801 | Ant. Coil                     |
|                |    |    |           |                                 | L102           | 1 | 1 | LA1027802 | RF Coil                       |
|                |    |    |           |                                 | L103           | 1 | 1 | LA1027803 | RF Coil                       |
|                |    |    |           |                                 | L104           | 1 | 1 | LA1027804 | RF Coil                       |
|                |    |    |           |                                 | L105           | 1 | 1 | LO1202604 | OSC Coil                      |
|                |    |    |           |                                 | L106           | 1 | 1 | LI1001601 | IFT                           |
|                |    |    |           |                                 |                |   |   |           | P100-SEMICONDUCTORS & PLUGS   |
| 1809           | 4  | 4  | 51100306S | GENERAL MISCELLANEOUS           | H101           | 1 | 1 | HF200191A | Transistor, 2SK19Y            |
| 1816           | 2  | 2  | 71101669Q | B. H. M. Screw                  | H102           | 1 | 1 | HF200191A | Transistor, 2SK19Y            |
| 1821           | 1  | 1  | 64000400R | Spring                          | H103           | 1 | 1 | HT305351B | Transistor, 2SC535B           |
|                |    |    |           |                                 |                |   |   |           | P100-RESISTORS                |
| P100           | 1  | 1  | YD2818001 | All resistors are ±5% and 1/4W. | J101           | 1 | 1 | YP1000094 | Plug                          |
|                | 1  | 1  | ZZ2917101 | 56KΩ                            | J102           | 1 | 1 | YP1000094 | Plug                          |
|                |    |    |           | 1MΩ                             | J103           | 1 | 1 | YP1000094 | Plug                          |
|                |    |    |           | 100KΩ                           | J104           | 1 | 1 | YP1000094 | Plug                          |
|                |    |    |           | 100Ω                            | J105           | 1 | 1 | YP1000094 | Plug                          |
|                |    |    |           | 220Ω                            | J106           | 1 | 1 | YP1000094 | Plug                          |
|                |    |    |           | 100Ω                            |                |   |   |           | P100-MISCELLANEOUS            |
| R101           | 1  | 1  | RT0556314 |                                 | 1806           | 1 | 1 | 281810903 | Shield                        |
| R102           | 1  | 1  | RT0510514 |                                 | 1807           | 2 | 2 | 281810904 | Shield                        |
| R103           | 1  | 1  | RT0510414 |                                 | 1808           | 1 | 1 | 281810905 | Shield                        |
| R104           | 1  | 1  | RT0510114 |                                 |                |   |   |           | Shield K                      |
| R105           | 1  | 1  | RT0522114 |                                 | 1703           | 1 | 1 | 281810950 | Bracket                       |
| R106           | 1  | 1  | RT0510114 |                                 | 1707           | 1 | 1 | 281816008 | Shaft                         |
| R107           | 1  | 1  | RT0510114 |                                 | 1708           | 1 | 1 | 281811201 | Bracket                       |
| R108           | 1  | 1  | RT0547214 |                                 | 1709           | 1 | 1 | 289016006 | B. H. M. Screw B 3x4          |
| R109           | 1  | 1  | RT0522314 |                                 | 1711           | 2 | 2 | 51100304A | Hexagon Nut                   |
| R110           | 1  | 1  | RT0510214 |                                 | 1714           | 1 | 1 | 53110403E | Spring Washer                 |
| R111           | 1  | 1  | RT0510114 | 100Ω                            | 1715           | 1 | 1 | 54040402N | P. H. Tapt Screw P 3x6 ST     |
| R112           | 1  | 1  | RT0510114 | 100Ω                            | 1718           | 4 | 4 | 51570306B | B. H. M. Screw B 3x4          |
| R113           | 1  | 1  | RT0522314 | 22KΩ                            | 1720           | 3 | 3 | 51100304E | Shield                        |
| R114           | 1  | 1  | RT0522314 | 22KΩ                            | 1725           | 1 | 1 | 281810908 |                               |
| R115           | 1  | 1  | RT0512214 | 1.2KΩ                           |                |   |   |           |                               |

U .... U.S.A.  
E .... Europe

| REF.<br>DESIG.   | U | E | PART NO.  | DESCRIPTION  | REF.<br>DESIG. | U | E | PART NO.  | DESCRIPTION                     |
|--|---|---|-----------|--|----------------|---|---|-----------|---------------------------------|
| 1726   | 2 | 2 | 114325901 | Bush   | C161           | 1 | 1 | DK1710301 | Ceramic, 0.01μF ±20%            |
| 1727   | 2 | 2 | 114325902 | Bush   | C162           | 1 | 1 | DK1710301 | Ceramic, 0.01μF ±20%            |
| 1728   | 2 | 2 | 51040308A | F. H. M. Screw F 3x8   | C163           | 1 | 1 | DF1615305 | Film, 0.015μF ±10%              |
| 1730   | 1 | 1 | 281805102 | Guide  | C164           | 1 | 1 | DF1633305 | Film, 0.033μF ±10%              |
| 1734   | 3 | 3 | 51060305E | P. H. M. Screw P 3x5   | C165           | 1 | 1 | DF1756205 | Film, 0.0056μF ±20%             |
| C001   | 1 | 1 | CA0330002 | Variable Cap.  | C166           | 1 | 1 | DK1840302 | Film, 0.04μF +80%,-20%          |
| 1819   | 1 | 1 | 281815901 | Drum   | C167           | 1 | 1 | EA2260169 | Electroly, 22μF, 16V            |
| 1820   | 1 | 1 | 71101569M | Spring   | C168           | 1 | 1 | EA1070169 | Electroly, 100μF, 16V           |
| 1811   | 2 | 2 | 281805850 | Gear K   | C169           | 1 | 1 | EA4750359 | Electroly, 4.7μF, 35V           |
| 1817   | 4 | 4 | 51650304D | Set Screw HP   | C170           | 1 | 1 | EA1070169 | Electroly, 100μF, 16V           |
| <b>AM TUNER CIRCUIT BOARD-P150</b>   |   |   |           |  |                |   |   |           |                                 |
| P150   | 1 | 1 | YD2909001 | P. W. Board, AM Tuner (Print Only)   | C171           | 1 | 1 | EA1050509 | Electroly, 1μF, 50V             |
|  | 1 | 1 | ZZ2917201 | P. W. Board Assembly   | C172           | 1 | 1 | EA1070169 | Electroly, 100μF, 16V           |
|  |   |   |           | <b>P150-RESISTORS</b><br>All resistors are ±5% and 1/4W, unless otherwise indicated. | C173           | 1 | 1 | EA4750359 | Electroly, 4.7μF, 35V           |
| R151   | 1 | 1 | RT0510314 | 10KΩ   | H151           | 1 | 1 | HC1000506 | <b>P150-SEMICONDUCTORS</b>      |
| R152   | 1 | 1 | RT0530314 | 30KΩ   | H152           | 1 | 1 | HT313272A | I C, μPC30C                     |
| R153   | 1 | 1 | RT0582314 | 82KΩ   | H153           | 1 | 1 | HT104942A | Transistor, 2SC1327 S.T         |
| R154   | 1 | 1 | RT0522314 | 22KΩ   | H154           | 1 | 1 | HT104942A | Transistor, 2SA494 Y.G          |
| R156   | 1 | 1 | RT0515414 | 150KΩ  | H155           | 1 | 1 | HH0000212 | Transistor, 2SA494 Y.G          |
| R157   | 1 | 1 | RC0000014 | 0Ω   | L151           | 1 | 1 | LA1001019 | Thermistor, 31D27               |
| R158   | 1 | 1 | RT0539314 | 39KΩ   | L152           | 1 | 1 | LO1001050 |                                 |
| R159   | 1 | 1 | RT0539214 | 3.9KΩ  | L153           | 1 | 1 | LI1028003 |                                 |
| R160   | 1 | 1 | RC0000012 | 0Ω   | L154           | 1 | 1 | LC1332002 |                                 |
| R161   | 1 | 1 | RT0543214 | 4.3KΩ  | L155           | 1 | 1 | LC1332002 |                                 |
| R162   | 1 | 1 | RT0510114 | 100Ω   | J151           | 1 | 1 | YP1000113 | <b>P150-COILS &amp; TRANSF.</b> |
| R163   | 1 | 1 | RT0515214 | 1.5KΩ  | J152           | 1 | 1 | YP1000113 | RF Coil, AM                     |
| R164   | 1 | 1 | RT0533114 | 330Ω   | J153           | 1 | 1 | YP1000113 | OSC Coil, AM                    |
| R165   | 1 | 1 | RC0000014 | 0Ω   | J155           | 1 | 1 | YP1000113 | I F T, AM Ceramic Filter        |
| R166   | 1 | 1 | RC0000014 | 0Ω   | J156           | 1 | 1 | YP1000113 | Choke Coil, 3.3μH               |
| R167   | 1 | 1 | RT0522214 | 2.2KΩ  | J157           | 1 | 1 | YP1000113 | Choke Coil, 3.3μH               |
| R168   | 1 | 1 | RT0582314 | 82KΩ   | J158           | 1 | 1 | YP1000113 |                                 |
| R169   | 1 | 1 | RT0562414 | 620KΩ  | J159           | 1 | 1 | YP1000113 |                                 |
| R170   | 1 | 1 | RT0551114 | 510Ω   | J160           | 1 | 1 | YP1000113 |                                 |
| R171   | 1 | 1 | RT0520214 | 2KΩ  | J161           | 1 | 1 | YP1000113 |                                 |
| R172   | 1 | 1 | RT0556214 | 5.6KΩ  | P200           | 1 | 1 | YD2917001 | <b>P150-PLUGS</b>               |
| R173   | 1 | 1 | RT0510114 | 100Ω   |                | 1 | 1 | ZZ2917001 | Plug                            |
| R174   | 1 | 1 | RT0510114 | 100Ω   |                |   |   |           | Plug                            |
| R175   | 1 | 1 | RT0510414 | 100KΩ  |                |   |   |           | Plug                            |
| R176   | 1 | 1 | RT0510314 | 10KΩ   |                |   |   |           | Plug                            |
| R177   | 1 | 1 | RT0512314 | 12KΩ   |                |   |   |           | Plug                            |
| R178   | 1 | 1 | RA0103025 | Trimming, 10KΩ (B)   |                |   |   |           | Plug                            |
| R179   | 1 | 1 | RT0512314 | 12KΩ   |                |   |   |           | Plug                            |
| R180   | 1 | 1 | RT0515214 | 1.5KΩ  |                |   |   |           | Plug                            |
| R181   | 1 | 1 | RT0510114 | 100Ω   |                |   |   |           | Plug                            |
| R182   | 1 | 1 | RT0515214 | 1.5KΩ  |                |   |   |           | Plug                            |
| <b>FM IF CIRCUIT BOARD-P200</b>  |   |   |           |  |                |   |   |           |                                 |
|  |   |   |           |  | P200           | 1 | 1 | YD2917001 | P. W. Board, FM IF (Print Only) |
|  |   |   |           |  |                | 1 | 1 | ZZ2917001 | P. W. Board Assembly            |
| <b>P200-RESISTORS</b><br>All resistors are ±5% and 1/4W, unless otherwise indicated. |   |   |           |  |                |   |   |           |                                 |
| C151   | 1 | 1 | DK1710301 | Ceramic, 0.01μF ±20%   | R201           | 1 | 1 | RT0515114 | 150Ω                            |
| C152   | 1 | 1 | DF1747305 | Film, 0.047μF ±20%   | R202           | 1 | 1 | RT0582214 | 8.2KΩ                           |
| C153   | 1 | 1 | DD1620001 | Ceramic, 20PF ±10%   | R203           | 1 | 1 | RT0518314 | 18KΩ                            |
| C154   | 1 | 1 | DK1710301 | Ceramic, 0.01μF ±20%   | R204           | 1 | 1 | RT0510214 | 1KΩ                             |
| C155   | 1 | 1 | DF6545101 | Film, 450PF ±5%  | R205           | 1 | 1 | RT0533114 | 330Ω                            |
| C156   | 1 | 1 | DD1615001 | Ceramic, 15PF ±10%   | R206           | 1 | 1 | RC0000014 | 0Ω, 1/4W                        |
| C157   | 1 | 1 | DK1710301 | Ceramic, 0.01μF ±20%   | R207           | 1 | 1 | RT0547014 | 47Ω                             |
| C158   | 1 | 1 | DK1840302 | Ceramic, 0.04μF +80%,-20%  | R208           | 1 | 1 | RT0533214 | 3.3KΩ                           |
| C159   | 1 | 1 | DK1840302 | Ceramic, 0.04μF +80%,-20%  | R209           | 1 | 1 | RT0515214 | 1.5KΩ                           |
| C160   | 1 | 1 | DK1710301 | Ceramic, 0.01μF ±20%   | R210           | 1 | 1 | RT0515114 | 150Ω                            |
|  |   |   |           |  | R212           | 1 | 1 | RT0510214 | 1KΩ                             |
|  |   |   |           |  | R213           | 1 | 1 | RT0533114 | 330Ω                            |
|  |   |   |           |  | R214           | 1 | 1 | RC0000014 | 0Ω, 1/4W                        |
|  |   |   |           |  | R215           | 1 | 1 | RT0547014 | 47Ω                             |
|  |   |   |           |  | R216           | 1 | 1 | RT0533214 | 3.3KΩ                           |
|  |   |   |           |  | R217           | 1 | 1 | RT0515214 | 1.5KΩ                           |
|  |   |   |           |  | R218           | 1 | 1 | RT0515114 | 150Ω                            |
|  |   |   |           |  | R219           | 1 | 1 | RT0510214 | 1KΩ                             |

U ..... U.S.A.  
E ..... Europe

| REF.<br>DESIG. | U | E | PART NO.  | DESCRIPTION | REF.<br>DESIG.         | U | E | PART NO.  | DESCRIPTION                |  |  |  |  |  |
|----------------|---|---|-----------|-------------|------------------------|---|---|-----------|----------------------------|--|--|--|--|--|
| R220           | 1 | 1 | RT0533114 | 330Ω        | R287                   | 1 | 1 | RT0522214 | 2.2KΩ                      |  |  |  |  |  |
| R221           | 1 | 1 | RC0000014 | 0Ω, 1/4W    | R288                   | 1 | 1 | RT0510114 | 100Ω                       |  |  |  |  |  |
| R223           | 1 | 1 | RT0547314 | 47KΩ        | R289                   | 1 | 1 | RT0510114 | 100Ω                       |  |  |  |  |  |
| R224           | 1 | 1 | RT0547014 | 47Ω         | R290                   | 1 | 1 | RT0512114 | 120Ω                       |  |  |  |  |  |
| R225           | 1 | 1 | RT0515214 | 1.5KΩ       | R291                   | 1 | 1 | RT0582214 | 8.2KΩ                      |  |  |  |  |  |
| R226           | 1 | 1 | RT0533214 | 3.3KΩ       | R292                   | 1 | 1 | RT0518314 | 18KΩ                       |  |  |  |  |  |
| R227           | 1 | 1 | RT0515114 | 150Ω        | R293                   | 1 | 1 | RT0522214 | 2.2KΩ                      |  |  |  |  |  |
| R228           | 1 | 1 | RT0556114 | 560Ω        | R294                   | 1 | 1 | RT0527314 | 27KΩ                       |  |  |  |  |  |
| R229           | 1 | 1 | RT0575014 | 75Ω         | R296                   | 1 | 1 | RT0533314 | 33KΩ                       |  |  |  |  |  |
| R230           | 1 | 1 | RC0000014 | 0Ω, 1/4W    | R297                   | 1 | 1 | RT0522314 | 22KΩ                       |  |  |  |  |  |
| R231           | 1 | 1 | RT0575014 | 75Ω         | R298                   | 1 | 1 | RT0515314 | 15KΩ                       |  |  |  |  |  |
| R232           | 1 | 1 | RT0510414 | 100KΩ       | <b>P200-CAPACITORS</b> |   |   |           |                            |  |  |  |  |  |
| R234           | 1 | 1 | RT0568314 | 68KΩ        | C201                   | 1 | 1 | DK1810301 | Ceramic, 0.01μF +80%,-20%  |  |  |  |  |  |
| R235           | 1 | 1 | RT0547014 | 47Ω         | C202                   | 1 | 1 | DK1810301 | Ceramic, 0.01μF +80%,-20%  |  |  |  |  |  |
| R236           | 1 | 1 | RT0582114 | 820Ω        | C203                   | 1 | 1 | DK1840302 | Ceramic, 0.04μF +80%,-20%  |  |  |  |  |  |
| R237           | 1 | 1 | RT0510214 | 1KΩ         | C204                   | 1 | 1 | EA1060169 | Electroly, 10μF, 16V       |  |  |  |  |  |
| R238           | 1 | 1 | RT0582114 | 820Ω        | C205                   | 1 | 1 | EA1060169 | Electroly, 10μF, 16V       |  |  |  |  |  |
| R239           | 1 | 1 | RT0515214 | 1.5KΩ       | C206                   | 1 | 1 | DK1840302 | Ceramic, 0.04μF +80%,-20%  |  |  |  |  |  |
| R240           | 1 | 1 | RT0533214 | 3.3KΩ       | C207                   | 1 | 1 | DK1810301 | Ceramic, 0.01μF +80%,-20%  |  |  |  |  |  |
| R241           | 1 | 1 | RT0515114 | 150Ω        | C208                   | 1 | 1 | EA1060169 | Electroly, 10μF, 16V       |  |  |  |  |  |
| R242           | 1 | 1 | RT0510214 | 1KΩ         | C209                   | 1 | 1 | DK1840302 | Ceramic, 0.04μF +80%,-20%  |  |  |  |  |  |
| R243           | 1 | 1 | RT0510214 | 1KΩ         | C210                   | 1 | 1 | DK1810301 | Ceramic, 0.01μF +80%,-20%  |  |  |  |  |  |
| R244           | 1 | 1 | RT0515114 | 150Ω        | C211                   | 1 | 1 | DD1540001 | Ceramic, 40PF ±5%          |  |  |  |  |  |
| R246           | 1 | 1 | RT0568314 | 68KΩ        | C213                   | 1 | 1 | DK1810301 | Ceramic, 0.01μF +80%,-20%  |  |  |  |  |  |
| R248           | 1 | 1 | RT0547014 | 47Ω         | C214                   | 1 | 1 | DD1540001 | Ceramic, 40PF ±5%          |  |  |  |  |  |
| R249           | 1 | 1 | RT0515114 | 150Ω        | C215                   | 1 | 1 | DK1810301 | Ceramic, 0.01μF +80%,-20%  |  |  |  |  |  |
| R250           | 1 | 1 | RT0510414 | 100KΩ       | C217                   | 1 | 1 | DK1840302 | Ceramic, 0.04μF +80%,-20%  |  |  |  |  |  |
| R251           | 1 | 1 | RT0582214 | 8.2KΩ       | C218                   | 1 | 1 | EA1060169 | Electroly, 10μF, 16V       |  |  |  |  |  |
| R252           | 1 | 1 | RT0515314 | 15KΩ        | C219                   | 1 | 1 | EA1060169 | Electroly, 10μF, 16V       |  |  |  |  |  |
| R253           | 1 | 1 | RT0510214 | 1KΩ         | C220                   | 1 | 1 | DK1840302 | Ceramic, 0.04μF +80%,-20%  |  |  |  |  |  |
| R254           | 1 | 1 | RT0510214 | 1KΩ         | C221                   | 1 | 1 | DK1810301 | Ceramic, 0.01μF +80%,-20%  |  |  |  |  |  |
| R255           | 1 | 1 | RT0515114 | 150Ω        | C222                   | 1 | 1 | DK1810301 | Ceramic, 0.01μF +80%,-20%  |  |  |  |  |  |
| R257           | 1 | 1 | RT0539314 | 39KΩ        | C223                   | 1 | 1 | DD1540001 | Ceramic, 40PF ±5%          |  |  |  |  |  |
| R258           | 1 | 1 | RT0522314 | 22KΩ        | C225                   | 1 | 1 | DK1810301 | Ceramic, 0.01μF +80%,-20%  |  |  |  |  |  |
| R259           | 1 | 1 | RT0582114 | 820Ω        | C226                   | 1 | 1 | DK1810301 | Ceramic, 0.01μF +80%,-20%  |  |  |  |  |  |
| R260           | 1 | 1 | RT0510414 | 100KΩ       | C227                   | 1 | 1 | DK1810301 | Ceramic, 0.01μF +80%,-20%  |  |  |  |  |  |
| R261           | 1 | 1 | RT0515114 | 150Ω        | C228                   | 1 | 1 | DD1540001 | Ceramic, 40PF ±5%          |  |  |  |  |  |
| R262           | 1 | 1 | RT0582214 | 8.2KΩ       | C229                   | 1 | 1 | EA1060169 | Electroly, 10μF, 16V       |  |  |  |  |  |
| R263           | 1 | 1 | RT0515314 | 15KΩ        | C230                   | 1 | 1 | DK1840302 | Ceramic, 0.04μF +80%,-20%  |  |  |  |  |  |
| R264           | 1 | 1 | RT0510214 | 1KΩ         | C232                   | 1 | 1 | DK1810301 | Ceramic, 0.01μF +80%,-20%  |  |  |  |  |  |
| R265           | 1 | 1 | RT0510214 | 1KΩ         | C233                   | 1 | 1 | DD1540001 | Ceramic, 40PF ±5%          |  |  |  |  |  |
| R266           | 1 | 1 | RT0510114 | 100Ω        | C234                   | 1 | 1 | DK1810301 | Ceramic, 0.01μF +80%,-20%  |  |  |  |  |  |
| R267           | 1 | 1 | RT0515114 | 150Ω        | C235                   | 1 | 1 | DK1810301 | Ceramic, 0.01μF +80%,-20%  |  |  |  |  |  |
| R268           | 1 | 1 | RT0515114 | 150Ω        | C236                   | 1 | 1 | DK1810301 | Ceramic, 0.01μF +80%,-20%  |  |  |  |  |  |
| R269           | 1 | 1 | RT0510414 | 100KΩ       | C237                   | 1 | 1 | DK1810301 | Ceramic, 0.01μF +80%,-20%  |  |  |  |  |  |
| R270           | 1 | 1 | RT0582214 | 8.2KΩ       | C238                   | 1 | 1 | DK1840302 | Ceramic, 0.04μF +80%,-20%  |  |  |  |  |  |
| R271           | 1 | 1 | RT0515314 | 15KΩ        | C239                   | 1 | 1 | DD1620101 | Ceramic, 200PF ±10%        |  |  |  |  |  |
| R272           | 1 | 1 | RT0510214 | 1KΩ         | C240                   | 1 | 1 | DD1620101 | Ceramic, 200PF ±10%        |  |  |  |  |  |
| R273           | 1 | 1 | RT0510114 | 100Ω        | C241                   | 1 | 1 | DD1620101 | Ceramic, 200PF ±10%        |  |  |  |  |  |
| R274           | 1 | 1 | RT0527214 | 2.7KΩ       | C242                   | 1 | 1 | EA1060169 | Electroly, 10μF, 16V       |  |  |  |  |  |
| R275           | 1 | 1 | RT0582114 | 820Ω        | C243                   | 1 | 1 | EA1070109 | Electroly, 100μF, 10V      |  |  |  |  |  |
| R276           | 1 | 1 | RT0582114 | 820Ω        | C244                   | 1 | 1 | EA1060169 | Electroly, 10μF, 16V       |  |  |  |  |  |
| R277           | 1 | 1 | RT0582114 | 820Ω        | C245                   | 1 | 1 | EA1060169 | Electroly, 10μF, 16V       |  |  |  |  |  |
| R278           | 1 | 1 | RT0568214 | 6.8KΩ       | C246                   | 1 | 1 | DK1840302 | Ceramic, 0.04μF, +80%,-20% |  |  |  |  |  |
| R279           | 1 | 1 | RT0568214 | 6.8KΩ       | C247                   | 1 | 1 | DK1840302 | Ceramic, 0.04μF, +80%,-20% |  |  |  |  |  |
| R280           | 1 | 1 | RT0510114 | 100Ω        | C248                   | 1 | 1 | EA1060169 | Electroly, 10μF, 16V       |  |  |  |  |  |
| R281           | 1 | 1 | RT0556314 | 56KΩ        | C249                   | 1 | 1 | EA1070169 | Electroly, 100μF, 16V      |  |  |  |  |  |
| R282           | 1 | 1 | RT0522314 | 22KΩ        | C250                   | 1 | 1 | EA2260169 | Electroly, 22μF, 16V       |  |  |  |  |  |
| R283           | 1 | 1 | RT0510114 | 100Ω        | C251                   | 1 | 1 | DK1810301 | Ceramic, 0.01μF, +80%,-20% |  |  |  |  |  |
| R284           | 1 | 1 | RT0510414 | 100KΩ       | C252                   | 1 | 1 | DD1540001 | Ceramic, 40PF, ±5%         |  |  |  |  |  |
| R285           | 1 | 1 | RT0518414 | 180KΩ       | C253                   | 1 | 1 | DK1840302 | Ceramic, 0.04μF, +80%,-20% |  |  |  |  |  |
| R286           | 1 | 1 | RT0510114 | 100Ω        | C254                   | 1 | 1 | DD1540001 | Ceramic, 40PF, ±5%         |  |  |  |  |  |
|                |   |   |           |             | C255                   | 1 | 1 | DD1620101 | Ceramic, 200PF ±10%        |  |  |  |  |  |

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| REF.<br>DESIG.                          | U | E | PART NO.  | DESCRIPTION                  |
|---|---|---|-----------|------------------------------|
| C256                                    | 1 | 1 | EV1050352 | Electroly, 1μF ±20%, 35V     |
| C257                                    | 1 | 1 | DD1620101 | Ceramic, 200PF ±10%          |
| C258                                    | 1 | 1 | DK1810301 | Ceramic, 0.01μF +80%,-20%    |
| C259                                    | 1 | 1 | DK1840302 | Ceramic, 0.04μF +80%,-20%    |
| C260                                    | 1 | 1 | EV1050352 | Electroly, 1μF, 35V          |
| C261                                    | 1 | 1 | EA1050509 | Electroly, 1μF, 50V          |
| C262                                    | 1 | 1 | DK1810402 | Ceramic 0.1μF +80%,-20%      |
| <b>P200-FILTERS, TRANSF. &amp; COIL</b> |   |   |           |                              |
| F201                                    | 1 | 1 | FP1107001 | Ceramic Filter, FA 10.7 M Hz |
| F202                                    | 1 | 1 | FP1107001 | Ceramic Filter, FA 10.7 M Hz |
| F203                                    | 1 | 1 | FP1107001 | Ceramic Filter, FA 10.7 M Hz |
| F204                                    | 1 | 1 | FP1107001 | Ceramic Filter, FA 10.7 M Hz |
| F205                                    | 1 | 1 | FP1107001 | Ceramic Filter, FA 10.7 M Hz |
| F206                                    | 1 | 1 | FP1107001 | Ceramic Filter, FA 10.7 M Hz |
| F207                                    | 1 | 1 | FP1107001 | Ceramic Filter, FA 10.7 M Hz |
| F208                                    | 1 | 1 | FP1107001 | Ceramic Filter, FA 10.7 M Hz |
| L201                                    | 1 | 1 | LI1401623 | I F T, FM Det.               |
| L202                                    | 1 | 1 | LC1332002 | Choke Coil, 3.3μH            |
| <b>P200-SEMICONDUCTORS</b>              |   |   |           |                              |
| H201                                    | 1 | 1 | HT308291C | Transistor, 2SC829C          |
| H202                                    | 1 | 1 | HT308291C | Transistor, 2SC829C          |
| H203                                    | 1 | 1 | HT308291C | Transistor, 2SC829C          |
| H204                                    | 1 | 1 | HT308291C | Transistor, 2SC829C          |
| H205                                    | 1 | 1 | HT308291C | Transistor, 2SC829C          |
| H206                                    | 1 | 1 | HT308291C | Transistor, 2SC829C          |
| H207                                    | 1 | 1 | HT308291C | Transistor, 2SC829C          |
| H208                                    | 1 | 1 | HT308291C | Transistor, 2SC829C          |
| H209                                    | 1 | 1 | HT308291C | Transistor, 2SC829C          |
| H210                                    | 1 | 1 | HT306441B | Transistor, 2SC644S          |
| H211                                    | 1 | 1 | HD2000121 | Diode, 1S2473C               |
| H212                                    | 1 | 1 | HD2000121 | Diode, 1S2473C               |
| H213                                    | 1 | 1 | HD2000121 | Diode, 1S2473C               |
| H214                                    | 1 | 1 | HD2000121 | Diode, 1S2473C               |
| H215                                    | 1 | 1 | HD2000121 | Diode, 1S2473C               |
| H216                                    | 1 | 1 | HD2000121 | Diode, 1S2473C               |
| H217                                    | 1 | 1 | HD2000121 | Diode, 1S2473C               |
| H218                                    | 1 | 1 | HD2000121 | Diode, 1S2473C               |
| H219                                    | 1 | 1 | HD1000302 | Diode, 20A90M                |
| H220                                    | 1 | 1 | HD1000302 | Diode, 20A90M                |
| H221                                    | 1 | 1 | HD1000105 | Diode, IN60                  |
| H222                                    | 1 | 1 | HD1000105 | Diode, IN60                  |
| H223                                    | 1 | 1 | HD1000105 | Diode, IN60                  |
| H224                                    | 1 | 1 | HD1000105 | Diode, IN60                  |
| H225                                    | 1 | 1 | HD1000105 | Diode, IN60                  |
| H226                                    | 1 | 1 | HD1000105 | Diode, IN60                  |
| H227                                    | 1 | 1 | HD1000105 | Diode, IN60                  |
| H228                                    | 1 | 1 | HD1000105 | Diode, IN60                  |
| H229                                    | 1 | 1 | HD1000105 | Diode, IN60                  |
| H230                                    | 1 | 1 | HD1000105 | Diode, IN60                  |
| H231                                    | 1 | 1 | HD1000105 | Diode, IN60                  |
| H232                                    | 1 | 1 | HD1000105 | Diode, IN60                  |
| H233                                    | 1 | 1 | HD1000302 | Diode, 20A90M                |
| <b>P200-MISCELLANEOUS</b>               |   |   |           |                              |
| J201                                    | 1 | 1 | YP1000113 | Plug                         |
| J202                                    | 1 | 1 | YP1000113 | Plug                         |
| J203                                    | 1 | 1 | YP1000113 | Plug                         |
| J204                                    | 1 | 1 | YP1000113 | Plug                         |
| J205                                    | 1 | 1 | YP1000113 | Plug                         |
| J206                                    | 1 | 1 | YP1000113 | Plug                         |
| J207                                    | 1 | 1 | YP1000113 | Plug                         |
| J208                                    | 1 | 1 | YP1000113 | Plug                         |
| J209                                    | 1 | 1 | YP1000113 | Plug                         |

| REF.<br>DESIG.   | U | E | PART NO.  | DESCRIPTION                      |
|--|---|---|-----------|----------------------------------|
| J210   | 1 | 1 | YP1000113 | Plug                             |
| J211   | 1 | 1 | YP1000113 | Plug                             |
| G201   | 1 | 1 | BF2230006 | Printed Comp. 1KΩ +0.022μF       |
| G202   | 1 | 1 | BF1020002 | Printed Comp. 100KΩ+1000PF       |
| G203   | 1 | 1 | BF1020001 | Printed Comp. 27KΩ+1000PF        |
| C204   | 1 | 1 | BF2010004 | Printed Comp. 27KΩ+200PF         |
| G205   | 1 | 1 | BF2010004 | Printed Comp. 27KΩ+200PF         |
| G206   | 1 | 1 | BF2010004 | Printed Comp. 27KΩ+200PF         |
| G207   | 1 | 1 | BF2010004 | Printed Comp. 27KΩ+200PF         |
| <b>FM MPX CIRCUIT BOARD-P300</b>                           |   |   |           |                                  |
| P300   | 1 | 1 | YD2890003 | P. W. Board, FM MPX (Print Only) |
|  | 1 | 1 | ZZ2917103 | P. W. Board Assembly             |
| <b>P300-RESISTORS</b>                                      |   |   |           |                                  |
| All resistors are ±5% and 1/4W, unless otherwise indicated |   |   |           |                                  |
| R301   | 1 | 1 | RA0202011 | Trimming, 2KΩ (B)                |
| R302   | 1 | 1 | RT0522414 | 220KΩ                            |
| R303   | 1 | 1 | RT0556314 | 56KΩ                             |
| R304   | 1 | 1 | RT0568314 | 68KΩ                             |
| R305   | 1 | 1 | RT0510114 | 100Ω                             |
| R306   | 1 | 1 | RT0518414 | 180KΩ                            |
| R307   | 1 | 1 | RT0522414 | 220KΩ                            |
| R308   | 1 | 1 | RT0512414 | 120KΩ                            |
| R309   | 1 | 1 | RT0510414 | 100KΩ                            |
| R310   | 1 | 1 | RT0568214 | 6.8KΩ                            |
| R311   | 1 | 1 | RA0502020 | Trimming, 5KΩ (B)                |
| R312   | 1 | 1 | RT0516314 | 16KΩ                             |
| R313   | 1 | 1 | RT0510214 | 1KΩ                              |
| R314   | 1 | 1 | RT0522414 | 220KΩ                            |
| R315   | 1 | 1 | RT0510214 | 1KΩ                              |
| R316   | 1 | 1 | RT0510214 | 1KΩ                              |
| R317   | 1 | 1 | RT0539214 | 3.9KΩ                            |
| R318   | 1 | 1 | RT0539214 | 3.9KΩ                            |
| R319   | 1 | 1 | RT0522414 | 220KΩ                            |
| R320   | 1 | 1 | RT0522314 | 22KΩ                             |
| R321   | 1 | 1 | RT0510114 | 100Ω                             |
| R322   | 1 | 1 | RT0510014 | 10Ω                              |
| R323   | 1 | 1 | RT0522414 | 220KΩ                            |
| R324   | 1 | 1 | RT0522414 | 220KΩ                            |
| R325   | 1 | 1 | RT0530314 | 30KΩ                             |
| R326   | 1 | 1 | RT0530314 | 30KΩ                             |
| R327   | 1 | 1 | RT0510414 | 100KΩ                            |
| R328   | 1 | 1 | RT0510414 | 100KΩ                            |
| R329   | 1 | 1 | RT0515514 | 1.5MΩ                            |
| R330   | 1 | 1 | RT0515514 | 1.5MΩ                            |
| R331   | 1 | 1 | RT0551114 | 510Ω                             |
| R332   | 1 | 1 | RT0551114 | 510Ω                             |
| R333   | 1 | 1 | RT0522314 | 22KΩ                             |
| R334   | 1 | 1 | RT0522314 | 22KΩ                             |
| R335   | 1 | 1 | RT0510114 | 100Ω                             |
| R336   | 1 | 1 | RT0510114 | 100Ω                             |
| R337   | 1 | 1 | RT0582214 | 8.2KΩ                            |
| R338   | 1 | 1 | RT0582214 | 8.2KΩ                            |
| R339   | 1 | 1 | RT0547114 | 470Ω                             |
| R340   | 1 | 1 | RT0547114 | 470Ω                             |
| R341   | 1 | 1 | RT0522414 | 220KΩ                            |
| R342   | 1 | 1 | RT0522414 | 220KΩ                            |
| R343   | 1 | 1 | RT0539214 | 3.9KΩ                            |
| R344   | 1 | 1 | RT0556414 | 560KΩ                            |
| R345   | 1 | 1 | RT0515314 | 15KΩ                             |

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| REF. DESIG. | U | E | PART NO.  | DESCRIPTION                | REF. DESIG. | U | E | PART NO.  | DESCRIPTION                |
|-------------|---|---|-----------|----------------------------|-------------|---|---|-----------|----------------------------|
| R346        | 1 | 1 | RT0512414 | 120KΩ                      | C330        | 1 | 1 | DK1840302 | Ceramic, 0.04μF +80%,-20%  |
| R347        | 1 | 1 | RT0510114 | 100Ω                       | C331        | 1 | 1 | EA1050509 | Electroly, 1μF, 50V        |
| R348        | 1 | 1 | RT0522414 | 220KΩ                      | C332        | 1 | 1 | EA1060169 | Electroly, 10μF, 16V       |
| R349        | 1 | 1 | RT0556214 | 5.6KΩ                      | C333        | 1 | 1 | DD1210001 | Ceramic, 10PF ±1PF         |
| R350        | 1 | 1 | RT0510314 | 10KΩ                       | C334        | 1 | 1 | DF1668301 | Film, 0.068μF ±10%         |
| R351        | 1 | 1 | RT0510114 | 100Ω                       | C335        | 1 | 1 | DF1740301 | Film, 0.04μF ±20%          |
| R352        | 1 | 1 | RT0533314 | 33KΩ                       | C336        | 1 | 1 | DK1810402 | Ceramic, 0.1μF +80%,-20%   |
| R353        | 1 | 1 | RT0510114 | 100Ω                       | C337        | 1 | 1 | EA4750359 | Electroly, 4.7μF, 35V      |
| R354        | 1 | 1 | RT0510414 | 100KΩ                      | C338        | 1 | 1 | EA1050509 | Electroly, 1μF, 50V        |
| R355        | 1 | 1 | RT0527314 | 27KΩ                       | C339        | 1 | 1 | DK1840302 | Ceramic, 0.04μF +80%,-20%  |
| R356        | 1 | 1 | RT0510414 | 100KΩ                      | C340        | 1 | 1 | DK1840302 | Ceramic, 0.04μF +80%,-20%  |
| R357        | 1 | 1 | RT0510214 | 1KΩ                        | C341        | 1 | 1 | DK1840302 | Ceramic, 0.04μF +80%,-20%  |
| R358        | 1 | 1 | RT0510114 | 100Ω                       | C343        | 1 | 1 | DF1710402 | Film, 0.1μF ±20%           |
| R359        | 1 | 1 | RT0527314 | 27KΩ                       | C344        | 1 | 1 | DK1820302 | Ceramic, 0.02μF +80%,-20%  |
| R360        | 1 | 1 | RT0533314 | 33KΩ                       |             |   |   |           |                            |
| R361        | 1 | 1 | RT0510414 | 100KΩ                      |             |   |   |           | <b>P300-SEMICONDUCTORS</b> |
| R362        | 1 | 1 | RA0104018 | Trimming, 100KΩ (B)        | H301        | 1 | 1 | HF200301C | FET, 2SK30Y                |
| R363        | 1 | 1 | RA0103025 | Trimming, 10KΩ (B)         | H302        | 1 | 1 | HT308281D | Transistor, 2SC828S        |
| R364        | 1 | 1 | RT0522214 | 2.2KΩ                      | H303        | 1 | 1 | HT308281D | Transistor, 2SC828S        |
| R365        | 1 | 1 | RT0510114 | 100Ω                       | H304        | 1 | 1 | HT307322A | Transistor, 2SC732B or G   |
| R366        | 1 | 1 | RT0510314 | 10KΩ                       | H305        | 1 | 1 | HT307322A | Transistor, 2SC732B or G   |
| R367        | 1 | 1 | RT0510114 | 100Ω                       | H306        | 1 | 1 | HT104942A | Transistor, 2SA494 G or Y  |
| R368        | 1 | 1 | RT0527414 | 270KΩ                      | H307        | 1 | 1 | HT104942A | Transistor, 2SA494 G or Y  |
| R369        | 1 | 1 | RT0510314 | 10KΩ                       | H308        | 1 | 1 | HT308281D | Transistor, 2SC828S        |
| R370        | 1 | 1 | RT0512314 | 12KΩ                       | H309        | 1 | 1 | HT308281D | Transistor, 2SC828S        |
| R371        | 1 | 1 | RT0522114 | 220Ω                       | H310        | 1 | 1 | HT308281D | Transistor, 2SC828S        |
| R373        | 1 | 1 | RT0582314 | 82KΩ                       | H311        | 1 | 1 | HT308281D | Transistor, 2SC828S        |
| R374        | 1 | 1 | RA0103025 | Trimming, 10KΩ (B)         | H312        | 1 | 1 | HF200300A | FET, 2SK30A                |
| R375        | 1 | 1 | RT0510114 | 100Ω                       | H313        | 1 | 1 | HT308281D | Transistor, 2SC828S        |
| R376        | 1 | 1 | RT0510414 | 100KΩ                      | H314        | 1 | 1 | HT308281D | Transistor, 2SC828S        |
| R377        | 1 | 1 | RT0510414 | 100KΩ                      | H315        | 1 | 1 | HT308281D | Transistor, 2SC828S        |
| R378        | 1 | 1 | RT0556214 | 5.6KΩ                      | H316        | 1 | 1 | HT308281D | Transistor, 2SC828S        |
| R379        | 1 | 1 | RT0533214 | 3.3KΩ                      | H317        | 1 | 1 | HT308281D | Transistor, 2SC828S        |
|             |   |   |           |                            | H318        | 1 | 1 | HD1000105 | Diode, IN60                |
|             |   |   |           |                            | H319        | 1 | 1 | HD1000105 | Diode, IN60                |
|             |   |   |           |                            | H321        | 1 | 1 | HC1000401 | IC, HA1156                 |
|             |   |   |           |                            |             |   |   |           |                            |
|             |   |   |           |                            |             |   |   |           | <b>P300-CAPACITORS</b>     |
| C301        | 1 | 1 | DF1633205 | Film, 3300PF ±10%          | L301        | 1 | 1 | LS1029004 | MPX Coil, 56mH             |
| C302        | 1 | 1 | EA3360109 | Electroly, 33μF, 10V       | L302        | 1 | 1 | LS1029004 | MPX Coil, 56mH             |
| C303        | 1 | 1 | DF1722305 | Film, 0.022μF ±20%         | L303        | 1 | 1 | LS1029005 | MPX Coil, 43mH             |
| C304        | 1 | 1 | EA2260169 | Electroly, 22μF, 16V       | L304        | 1 | 1 | LS1029005 | MPX Coil, 43mH             |
| C305        | 1 | 1 | DF5547101 | Film, 470PF ±5%            | L305        | 1 | 1 | LC2105001 | Choke Coil, 1mH            |
| C306        | 1 | 1 | EA2260169 | Electroly, 22μF, 16V       | J301        | 1 | 1 | YP1000113 | Plug                       |
| C307        | 1 | 1 | EQ4740501 | Electroly, 0.47μF ±20%,50V | J302        | 1 | 1 | YP1000113 | Plug                       |
| C308        | 1 | 1 | EQ2240501 | Electroly, 0.22μF ±20%,50V | J303        | 1 | 1 | YP1000113 | Plug                       |
| C309        | 1 | 1 | EQ2240501 | Electroly, 0.22μF ±20%,50V | J304        | 1 | 1 | YP1000113 | Plug                       |
| C310        | 1 | 1 | DF1747301 | Film, 0.047μF ±20%         | J305        | 1 | 1 | YP1000113 | Plug                       |
| C311        | 1 | 1 | DF1515205 | Film, 1500PF ±5%           | J306        | 1 | 1 | YP1000113 | Plug                       |
| C312        | 1 | 1 | DF1515205 | Film, 1500PF ±5%           | J307        | 1 | 1 | YP1000113 | Plug                       |
| C313        | 1 | 1 | DD1536101 | Ceramic, 360PF ±5%         | J308        | 1 | 1 | YP1000113 | Plug                       |
| C314        | 1 | 1 | DD1536101 | Ceramic, 360PF ±5%         | J309        | 1 | 1 | YP1000113 | Plug                       |
| C315        | 1 | 1 | DF1533205 | Film, 3300PF ±5%           | J310        | 1 | 1 | YP1000113 | Plug                       |
| C316        | 1 | 1 | DF1533205 | Film, 3300PF ±5%           | J311        | 1 | 1 | YP1000113 | Plug                       |
| C317        | 1 | 1 | DF1515205 | Film, 1500PF ±5%           | J312        | 1 | 1 | YP1000113 | Plug                       |
| C318        | 1 | 1 | DF1515205 | Film, 1500PF ±5%           | J313        | 1 | 1 | YP1000113 | Plug                       |
| C319        | 1 | 1 | DF1522205 | Film, 2200PF ±5%           | J314        | 1 | 1 | YP1000113 | Plug                       |
| C320        | 1 | 1 | DF1522205 | Film, 2200PF ±5%           | J315        | 1 | 1 | YP1000113 | Plug                       |
| C321        | 1 | 1 | DF1510205 | Film, 1000PF ±5%           | J316        | 1 | 1 | YP1000113 | Plug                       |
| C322        | 1 | 1 | DF1510205 | Film, 1000PF ±5%           | J317        | 1 | 1 | YP1000113 | Plug                       |
| C323        | 1 | 1 | EV2240351 | Electroly, 0.22μF ±20%,35V | J318        | 1 | 1 | YP1000113 | Plug                       |
| C324        | 1 | 1 | EV2240351 | Electroly, 0.22μF ±20%,35V | J319        | 1 | 1 | YP1000113 | Plug                       |
| C325        | 1 | 1 | EV1050352 | Electroly, 1μF ±20%,35V    | J320        | 1 | 1 | YP1000113 | Plug                       |
| C326        | 1 | 1 | EV1050352 | Electroly, 1μF ±20%,35V    | J321        | 1 | 1 | YP1000113 | Plug                       |
| C327        | 1 | 1 | EA2270259 | Electroly, 220μF, 25V      |             |   |   |           |                            |
| C328        | 1 | 1 | EA2270169 | Electroly, 220μF, 16V      |             |   |   |           |                            |
| C329        | 1 | 1 | EA1060169 | Electroly, 10μF, 16V       |             |   |   |           |                            |

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| REF.<br>DESIG. | U | E | PART NO.  | DESCRIPTION  |
|----------------|---|---|-----------|--|
| J322           | 1 | 1 | YP1000113 | Plug   |
|                |   |   |           | <b>DOLBY LEVEL CIRCUIT BOARD-PC01</b>  |
| PC01           | 1 | 1 | YD2916003 | P. W. Board, Dolby Level (Print Only)  |
|                | 1 | 1 | ZZ2917203 | P. W. Board Assembly   |
|                |   |   |           | <b>PC01-MISCELLANEOUS</b>  |
| RC01           | 1 | 1 | RA0104015 | Trimming Resist., 100KΩ (B)  |
| RC02           | 1 | 1 | RA0104015 | Trimming Resist., 100KΩ (B)  |
| RC03           | 1 | 1 | RT0568314 | Resister, 68KΩ ±5%, ½W   |
| RC04           | 1 | 1 | RT0568314 | Resister, 68KΩ ±5%, ½W   |
| RC05           | 1 | 1 | RT0510414 | Resister, 100KΩ ±5%, ½W  |
| RC06           | 1 | 1 | RT0510414 | Resister, 100KΩ ±5%, ½W  |
| RC07           | 1 | 1 | RT0539214 | Resister, 3.9KΩ ±5%, ½W  |
| RC08           | 1 | 1 | RT0539214 | Resister, 3.9KΩ ±5%, ½W  |
| RC09           | 1 | 1 | RT0510414 | Resister, 100KΩ ±5%, ½W  |
| RC10           | 1 | 1 | RT0510414 | Resister, 100KΩ ±5%, ½W  |
| CC01           | 1 | 1 | EV1050256 | Electroly Cap., 1μF, 25V   |
| CC02           | 1 | 1 | EV1050256 | Electroly Cap., 1μF, 25V   |
| CC03           | 1 | 1 | EV1050256 | Electroly Cap., 1μF, 25V   |
| CC04           | 1 | 1 | EV1050256 | Electroly Cap., 1μF, 25V   |
| JC01           | 1 | 1 | YP1000113 | Plug   |
| JC02           | 1 | 1 | YP1000113 | Plug   |
| JC03           | 1 | 1 | YP1000113 | Plug   |
| JC04           | 1 | 1 | YP1000113 | Plug   |
| JC05           | 1 | 1 | YP1000113 | Plug   |
| JC06           | 1 | 1 | YP1000113 | Plug   |
| JC07           | 1 | 1 | YP1000113 | Plug   |
| HC01           | 1 | 1 | HT313272A | Transistor, 2SC1327 S or T   |
| HC02           | 1 | 1 | HT313272A | Transistor, 2SC1327 S or T   |
|                |   |   |           | <b>PHONO AMP. CIRCUIT BOARD-P400</b>   |
| P400           | 1 | 1 | YD2892008 | P.W. Board, Phono Amp.(Print Only)   |
|                | 1 | 1 | ZZ2917108 | P.W. Board Assembly  |
|                |   |   |           | <b>P400-RESISTORS</b><br>All resistors are ±5% and ½W, unless otherwise indicated. |
| R401           | 1 | 1 | RT0556314 | 56KΩ   |
| R402           | 1 | 1 | RT0556314 | 56KΩ   |
| R403           | 1 | 1 | RT0547114 | 470Ω   |
| R404           | 1 | 1 | RT0547114 | 470Ω   |
| R405           | 1 | 1 | RN0533314 | 33KΩ   |
| R406           | 1 | 1 | RN0510514 | 1MΩ  |
| R407           | 1 | 1 | RN0510514 | 1MΩ  |
| R408           | 1 | 1 | RA0104015 | Trimming, 100KΩ (B) ±30%   |
| R409           | 1 | 1 | RA0104015 | Trimming, 100KΩ (B) ±30%   |
| R410           | 1 | 1 | RN0527314 | 27KΩ   |
| R411           | 1 | 1 | RN0527314 | 27KΩ   |
| R412           | 1 | 1 | RT0562114 | 620Ω   |
| R413           | 1 | 1 | RT0562114 | 620Ω   |
| R414           | 1 | 1 | RT0522514 | 2.2MΩ  |
| R415           | 1 | 1 | RT0522514 | 2.2MΩ  |
| R416           | 1 | 1 | RN0522514 | 2.2MΩ  |
| R417           | 1 | 1 | RN0522514 | 2.2MΩ  |
| R418           | 1 | 1 | RN0527414 | 270KΩ  |
| R419           | 1 | 1 | RN0527414 | 270KΩ  |
| R420           | 1 | 1 | RT0547314 | 47KΩ   |

| REF.<br>DESIG. | U | E | PART NO.  | DESCRIPTION  |
|----------------|---|---|-----------|--|
| R421           | 1 | 1 | RT0547314 | 47KΩ   |
| R422           | 1 | 1 | RT0522214 | 2.2KΩ  |
| R423           | 1 | 1 | RT0522214 | 2.2KΩ  |
| R424           | 1 | 1 | RN0568414 | 680KΩ  |
| R425           | 1 | 1 | RN0568414 | 680KΩ  |
| R426           | 1 | 1 | RN0510414 | 100KΩ  |
| R427           | 1 | 1 | RN0510414 | 100KΩ  |
| R428           | 1 | 1 | RN0547314 | 47KΩ   |
| R429           | 1 | 1 | RN0547314 | 47KΩ   |
| R430           | 1 | 1 | RT0547014 | 47Ω  |
| R431           | 1 | 1 | RT0547014 | 47Ω  |
| R432           | 1 | 1 | RN0533214 | 3.3KΩ  |
| R433           | 1 | 1 | RN0533214 | 3.3KΩ  |
| R434           | 1 | 1 | RT0510114 | 100Ω   |
| R435           | 1 | 1 | RT0547014 | 47Ω  |
| R436           | 1 | 1 | RT0547014 | 47Ω  |
| C401           | 1 | 1 | EV1050256 | <b>P400-CAPACITORS</b><br>Electroly, 1μF ±20%, 25V |
| C402           | 1 | 1 | EV1050256 | Electroly, 1μF ±20%, 25V                           |
| C403           | 1 | 1 | EE4760163 | Electroly, 47μF ±20%, 16V                          |
| C404           | 1 | 1 | EE4760163 | Electroly, 47μF ±20%, 16V                          |
| C405           | 1 | 1 | DD1540004 | Ceramic, 40PF ±5%, 50V                             |
| C406           | 1 | 1 | DD1540004 | Ceramic, 40PF ±5%, 50V                             |
| C407           | 1 | 1 | DD1104001 | Ceramic, 4PF ±0.5PF, 50V                           |
| C408           | 1 | 1 | DD1104001 | Ceramic, 4PF ±0.5PF, 50V                           |
| C409           | 1 | 1 | DF6556201 | Film, 5600μF ±5%, 50V                              |
| C410           | 1 | 1 | DF6556201 | Film, 5600μF ±5%, 50V                              |
| C411           | 1 | 1 | DF6516201 | Film, 1600PF ±5%, 50V                              |
| C412           | 1 | 1 | DF6516201 | Film, 1600PF ±5%, 50V                              |
| C413           | 1 | 1 | ED1070351 | Electroly, 100μF, 35V                              |
| C414           | 1 | 1 | DF1710551 | Film, 1μF ±20%, 250V                               |
| C415           | 1 | 1 | DF1710551 | Film, 1μF ±20%, 250V                               |
| C416           | 1 | 1 | DD1650001 | Ceramic, 50PF ±10%, 250V                           |
| C417           | 1 | 1 | DD1650001 | Ceramic, 50PF ±10%, 250V                           |
| H401           | 1 | 1 | HT313441E | <b>P400—SEMICONDUCTORS</b><br>Transistor, 2SC1344E |
| H402           | 1 | 1 | HT313441E | Transistor, 2SC1344E                               |
| H403           | 1 | 1 | HT313442A | Transistor, 2SC1344 D or E                         |
| H404           | 1 | 1 | HT313442A | Transistor, 2SC1344 D or E                         |
| H405           | 1 | 1 | HT304580R | Transistor, 2SC458L B                              |
| H406           | 1 | 1 | HT304580R | Transistor, 2SC458L B                              |
| H407           | 1 | 1 | HD2000121 | Diode, 1S-2473C Ye                                 |
| H408           | 1 | 1 | HD2000121 | Diode, 1S-2473C Ye                                 |
| H409           | 1 | 1 | HV0000206 | Varistor, VD1212                                   |
| J401           | 1 | 1 | YP1000113 | <b>P400-PLUGS</b>                                  |
| J402           | 1 | 1 | YP1000113 |  |
| J403           | 1 | 1 | YP1000113 |  |
| J404           | 1 | 1 | YP1000113 |  |
| J405           | 1 | 1 | YP1000113 |  |
| J406           | 1 | 1 | YP1000113 |  |
| J407           | 1 | 1 | YP1000113 |  |
| J408           | 1 | 1 | YP1000113 |  |
| 2012           | 8 | 8 | 51100306S | <b>P700-MISCELLANEOUS</b><br>B.H.M. Screw B 3 x 6  |
| 2013           | 1 | 1 | 291710901 | Shield   |
| 2014           | 2 | 2 | 51570306B | P. H. Tapt Screw P 3 x 6 ST                        |
| 2018           | 2 | 2 | 51100310S | B.H.M. Screw B 3 x 10                              |
| 2019           | 2 | 2 | 54040302N | Spring Washer                                      |
| 2020           | 2 | 2 | 53110303E | Hexagon Nut  |

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| REF. DESIG. | U | E | PART NO.  | DESCRIPTION  | REF. DESIG. | U | E | PART NO.  | DESCRIPTION                 |
|-------------|---|---|-----------|--|-------------|---|---|-----------|-----------------------------|
| P700        | 2 | 2 | YD2917003 | MAIN AMP. CIRCUIT BOARD-P700                                   | C711        | 2 | 2 | DF1710452 | Film, 0.1μF ±20%, 200V      |
|             | 2 | 2 | ZZ2917003 | P.W. Board, Main Amp. (Print Only)                             | C712        | 2 | 2 | DF1710452 | Film, 0.1μF ±20%, 200V      |
|             |   |   |           | P.W. Board Assembly  | C713        | 2 | 2 | DD1647050 | Ceramic, 47PF ±10%, 500V    |
| R701        | 2 | 2 | RT0547414 | P700-RESISTORS   | C714        | 2 | 2 | DD1647050 | Ceramic, 47PF ±10%, 500V    |
| R702        | 2 | 2 | RT0510214 | All resistors are ±5% and 1/4W,<br>unless otherwise indicated. | C715        | 2 | 2 | DK1720301 | Ceramic, 0.02μF ±20%, 50V   |
| R703        | 2 | 2 | RT0510414 | 470KΩ  | C716        | 2 | 2 | DK1720301 | Ceramic, 0.02μF ±20%, 50V   |
| R704        | 2 | 2 | RT0515114 | 1KΩ  | C717        | 2 | 2 | DF1710405 | Film, 0.1μF ±20%, 50V       |
| R705        | 2 | 2 | RT0515314 | 100KΩ  | C718        | 2 | 2 | DF1710405 | Film, 0.1μF ±20%, 50V       |
| R706        | 2 | 2 | RT0539214 | 150Ω   | C719        | 2 | 2 | DF1710405 | Film, 0.1μF ±20%, 50V       |
| R707        | 2 | 2 | RT0510314 | 3.9KΩ  | C720        | 2 | 2 | DF1710351 | Film, 0.01μF ±20%, 200V     |
| R708        | 2 | 2 | RT0510314 | 10KΩ   | C721        | 2 | 2 | DK1650150 | Ceramic, 500PF ±10%, 500V   |
| R709        | 2 | 2 | RT0510214 | 10KΩ   | L701        | 2 | 2 | LC2202001 | Choke Coil, 2μH             |
| R710        | 2 | 2 | RT0522414 | 220KΩ  |             |   |   |           | P700-SEMICONDUCTORS & PLUGS |
| R711        | 2 | 2 | RT0543214 | 4.3KΩ  | H701        | 1 | 1 | HT313271T | Transistor, 2SC1327 T.U     |
| R712        | 2 | 2 | RT0513314 | 13KΩ   | H702        | 1 | 1 | HT313271T | Transistor, 2SC1327 T.U     |
| R713        | 2 | 2 | RT0512214 | 1.2KΩ  | H703        | 2 | 2 | HT107212A | Transistor, 2SA721 S.T      |
| R714        | 2 | 2 | RT0510114 | 100Ω   | H704        | 2 | 2 | HT313272A | Transistor, 2SC1327 S.T     |
| R715        | 2 | 2 | RT0556014 | 56Ω  | H705        | 2 | 2 | HT309452A | Transistor, 2SC945 Q.R      |
| R716        | 2 | 2 | GJ0515201 | 1.5KΩ ±5%, 1W  | H706        | 2 | 2 | HT107332A | Transistor, 2SA733 P.Q      |
| R717        | 2 | 2 | GJ0515201 | 1.5KΩ ±5%, 1W  | H707        | 2 | 2 | HT309452A | Transistor, 2S945 Q.R       |
| R718        | 2 | 2 | RT0568114 | 680Ω   | H708        | 2 | 2 | HT107332A | Transistor, 2SA733 P.Q      |
| R719        | 2 | 2 | RT0568114 | 680Ω   | H709        | 2 | 2 | HT304961B | Transistor, 2SC496 O        |
| R720        | 2 | 2 | RT0530114 | 300Ω   | H710        | 2 | 2 | HV0000705 | Varistor, S3016R            |
| R721        | 2 | 2 | RT0527314 | 27KΩ   | H711        | 1 | 1 | HT107941Q | Transistor, 2SA794 Q.R      |
| R722        | 2 | 2 | RT0527314 | 27KΩ   | H712        | 1 | 1 | HT315671Q | Transistor, 2SC1567 Q.R     |
| R723        | 2 | 2 | RT0510414 | 100KΩ  | H713        | 1 | 1 | HT403821M | Transistor, 2SD382 M.L.K    |
| R724        | 2 | 2 | RT0547314 | 47KΩ   | H714        | 1 | 1 | HT205371M | Transistor, 2SB537 M.L.K    |
| R725        | 2 | 2 | RT0510114 | 100Ω   | H715        | 2 | 2 | HD3002509 | Diode, WZ-150(15V±5%)       |
| R726        | 2 | 2 | RT0510114 | 100Ω   | H716        | 2 | 2 | HD3002509 | Diode, WZ-150(15V±5%)       |
| R727        | 2 | 2 | RT0502214 | 2.2Ω   | H718        | 2 | 2 | HD2000321 | Diode, 1S2471(Black)        |
| R728        | 2 | 2 | RC0000012 | 0Ω   | H719        | 2 | 2 | HD2000321 | Diode, 1S2471(Black)        |
| R729        | 2 | 2 | RT0510214 | 1KΩ  | H720        | 2 | 2 | HV0000506 | Diode, VD1122               |
| R730        | 2 | 2 | RT0533214 | 3.3KΩ  | H721        | 2 | 2 | HV0000506 | Diode, VD1122               |
| R731        | 2 | 2 | RT0532124 | 3.3KΩ  | J701        | 2 | 2 | YP1000109 | Plug                        |
| R732        | 2 | 2 | RT0515114 | 150Ω   | J702        | 2 | 2 | YP1000109 | Plug                        |
| R733        | 2 | 2 | RT0513114 | 130Ω   | J703        | 2 | 2 | YP1000113 | Plug                        |
| R734        | 2 | 2 | GF0510112 | 100Ω ±5%, ½W   | J704        | 2 | 2 | YP1000113 | Plug                        |
| R735        | 2 | 2 | GF0510112 | 100Ω ±5%, ½W   | J705        | 2 | 2 | YP1000113 | Plug                        |
| R736        | 2 | 2 | RT0510114 | 100Ω   | J706        | 2 | 2 | YP1000113 | Plug                        |
| R737        | 2 | 2 | RT0510114 | 100Ω   | J707        | 2 | 2 | YP1000113 | Plug                        |
| R738        | 2 | 2 | GJ0520220 | 2.2Ω ±5%, 2W   | J708        | 2 | 2 | YP1000113 | Plug                        |
| R739        | 2 | 2 | GJ0510002 | 10Ω ±5%, 2W  | J709        | 2 | 2 | YP0600031 | Plug, 5P Connector          |
| R740        | 2 | 2 | BW1000205 | 0.2+0.2Ω, 5W   | J710        | 2 | 2 | YP0600030 | Plug, 3P Connector          |
| R741        | 2 | 2 | RA0202013 | Trimming, 2KΩ (B)  |             |   |   |           | P700-MISCELLANEOUS          |
| R742        | 2 | 2 | RA0102020 | Trimming, 1KΩ (B)  | 2017        | 2 | 2 | 291726701 | Heat Sink                   |
| R743        | 2 | 2 | RC0000012 | 0Ω   | 2021        | 2 | 2 | 51100310E | B.H.M. Screw B 3x10         |
| R744        | 2 | 2 | RC0000012 | 0Ω   | 2022        | 2 | 2 | 54040302N | Spring Washer               |
| R745        | 2 | 2 | RT0556114 | 560Ω   | 2023        | 2 | 2 | 53110303E | Hexagon Nut                 |
| R746        | 2 | 2 | RC0000012 | 0Ω   | 2024        | 2 | 2 | 53110301E | Hexagon Nut                 |
| C701        | 2 | 2 | DF2710550 | P700-CAPACITORS & COIL   | 2025        | 2 | 2 | 54020301E | Flat Washer P               |
| C702        | 2 | 2 | EE4760163 | Film, 1μF ±20%, 100V   | 2026        | 4 | 4 | 291726702 | Heat Sink                   |
| C703        | 2 | 2 | EA1060169 | Electroly, 47μF ±20%, 16V                                      | 2027        | 4 | 4 | 51100308S | B. H. M. Screw B 3x8        |
| C704        | 2 | 2 | EA1060169 | Electroly, 10μF +50%,-0%, 16V                                  | 2028        | 4 | 4 | 53110303E | Hexagon Nut                 |
| C705        | 2 | 2 | DD1510101 | Electroly, 10μF +50%,-0%, 16V                                  | 2103        | 4 | 4 | 281826703 | Heat Sink                   |
| C706        | 2 | 2 | DK1610201 | Ceramic, 100PF ±5%, 50V  | 2104        | 8 | 8 | 51100310E | B.H.M. Screw B 3 x 10       |
| C707        | 2 | 2 | DK1622151 | Ceramic, 1000PF ±10%, 50V                                      | 2105        | 8 | 8 | 53110303E | Hexagon Nut                 |
| C708        | 2 | 2 | DD1105050 | Ceramic, 220PF ±10%, 500V                                      | 2106        | 8 | 8 | 54060300R | T.L. Washer IR              |
| C709        | 2 | 2 | DD1515150 | Ceramic, 5PF ±0.25PF, 500V                                     | 2107        | 8 | 8 | 53110301E | Hexagon Nut                 |
| C710        | 2 | 2 | DF1710452 | Ceramic, 150PF ±5%, 500V                                       | 2108        | 8 | 8 | 54040302N | Spring Washer               |
|             |   |   |           | Film, 0.1μF ±20%, 200V   | 2111        | 2 | 2 | 281910101 | Support                     |
|             |   |   |           |  | 2112        | 2 | 2 | 291705501 | Collar                      |
|             |   |   |           |  | 2113        | 2 | 2 | 59110339H | Washer                      |
|             |   |   |           |  | 2114        | 2 | 2 | 257700501 | Clamper                     |
|             |   |   |           |  | 2115        | 2 | 2 | 51100325E | B.H.M.Screw B 3x25          |

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| REF.<br>DESIG. | U  | E  | PART NO.   | DESCRIPTION                            | REF.<br>DESIG. | U | E | PART NO.  | DESCRIPTION                            |
|----------------|----|----|------------|--|----------------|---|---|-----------|--|
|                |    |    |            | <b>GENERAL MISCELLANEOUS</b>           | H809           | 1 | 1 | HDS002309 | Diode, WZ-071                          |
| 2003           | 2  | 2  | 281826701  | Heat Sink                              | H810           | 1 | 1 | HD3002709 | Diode, WZ-140                          |
| 2005           | 4  | 4  | 291716005  | Bracket                                | H811           | 1 | 1 | HD2001103 | Diode, DS131-B                         |
| 2006           | 12 | 12 | 51380306T  | P.H.Tapt Screw P 3x6ST                 | H812           | 1 | 1 | HD2000321 | Diode, 1S2471                          |
| 2010           | 4  | 4  | 291716003  | Bracket                                | L801           | 1 | 1 | LY2024006 | Relay, MY2, 24V                        |
| 2011           | 8  | 8  | 51060406S  | P.H.M. Screw P 4x6                     | J801           | 1 | 1 | YP1000113 | Plug                                   |
| 2015           | 8  | 8  | 51100312E  | B.H.M. Screw B 3x12                    | J802           | 1 | 1 | YP1000113 | Plug                                   |
| 2032           | 4  | 4  | 257711802  | Spacer                                 | J803           | 1 | 1 | YP1000113 | Plug                                   |
| H001           | 1  | 1  | HL001019A  | Transistor, SJ2518                     | J804           | 1 | 1 | YP1000113 | Plug                                   |
| H002           | 1  | 1  | HL001019A  | Transistor, SJ2517                     | J805           | 1 | 1 | YP1000113 | Plug                                   |
| H003           | 1  | 1  | HL001019A  | Transistor, SJ2518                     | J806           | 1 | 1 | YP1000113 | Plug                                   |
| H004           | 1  | 1  | HL001019A  | Transistor, SJ2517                     | J807           | 1 | 1 | YP1000113 | Plug                                   |
| J012           | 1  | 1  | YJ0500019  | Socket, Power Transistor               | J808           | 1 | 1 | YP1000113 | Plug                                   |
| J013           | 1  | 1  | YJ0500019  | Socket, Power Transistor               | J809           | 1 | 1 | YP1000113 | Plug                                   |
| J014           | 1  | 1  | YJ0500019  | Socket, Power Transistor               | J810           | 1 | 1 | YP1000113 | Plug                                   |
| J015           | 1  | 1  | YJ0500019  | Socket, Power Transistor               |                |   |   |           | <b>P800—MISCELLANEOUS</b>              |
|                |    |    |            |  | 2203           | 1 | 1 | 291626702 | Heat Sink                              |
|                |    |    |            | <b>POWER SUPPLY CIRCUIT BOARD-P800</b> | 2204           | 2 | 2 | 51102606S | B.H.M. Screw B 2.6x6                   |
| P800           | 1  | 1  | YD2916002  | P.W. Board, Power Supply (Print Only)  | 2205           | 1 | 1 | 51100310E | B.H.M. Screw B 3x10                    |
|                |    |    | ZZ2917102  | P.W. Board Assembly                    | 2206           | 1 | 1 | 53110301E | Hexagon Nut                            |
|                |    |    |            |  | 2207           | 1 | 1 | 54050300R | T.L.Washer OR                          |
|                |    |    |            |  |                |   |   |           | <b>GENERAL MISCELLANEOUS</b>           |
| R801           | 1  | 1  | GF0533014  | 33Ω ±5%, 1W                            | 0803           | 1 | 1 | 291516050 | Bracket K                              |
| R802           | 1  | 1  | RT0547214  | 4.7KΩ ±5%, 1W                          | 0810           | 1 | 1 | 291512002 | Insulator                              |
| R803           | 1  | 1  | RT0547214  | 4.7KΩ ±5%, 1W                          | 0811           | 2 | 2 | 51100306A | B.H.M. Screw B 3x6                     |
| R804           | 1  | 1  | RT0539214  | 3.9KΩ ±5%, 1W                          | 0813           | 4 | 4 | 51100306A | B.H.M. Screw B 3x6                     |
| R805           | 1  | 1  | RT0522314  | 22KΩ ±5%, 1W                           | 0817           | 2 | 2 | 51100306A | B.H.M. Screw B 3x6                     |
| R806           | 1  | 1  | RA0502023  | Trimming, 5KΩ (B)                      | 0822           | 2 | 2 | 51100306A | B.H.M. Screw B 3x6                     |
| R807           | 1  | 1  | GS1015105  | 150Ω ±10%, 5W                          | 0827           | 2 | 2 | 51470306A | B.H.M. Screw B 3x6                     |
| R808           | 1  | 1  | RT0533214  | 3.3KΩ ±5%, 1W                          | 0833           | 3 | 3 | 51100305A | B.H.M. Screw B 3x5                     |
| R809           | 1  | 1  | RT0510014  | 10Ω ±5%, 1W                            | 0834           | 1 | 1 | 291712001 | Insulator                              |
| R810           | 1  | 1  | RT0533314  | 33KΩ ±5%, 1W                           | 0835           | 2 | 2 | 291612001 | Insulator                              |
| R811           | 1  | 1  | RT0527314  | 27KΩ ±5%, 1W                           | 0903           | 1 | 1 | 281816003 | Bracket                                |
| R812           | 1  | 1  | RT0568214  | 6.8KΩ ±5%, 1W                          | 0904           | 1 | 1 | 281816004 | Bracket                                |
| R813           | 1  | 1  | RT0524414  | 240KΩ ±5%, 1W                          | 0905           | 4 | 4 | 51100406A | B.H.M. Screw B 4x6                     |
| R814           | 1  | 1  | RT0539314  | 39KΩ ±5%, 1W                           | 1010           | 2 | 2 | 51042608A | F.H.M. Screw F 2.6x8                   |
| R815           | 1  | 1  | GJ0556101  | 560Ω ±5%, 1W                           | 1111           | 2 | 2 | 51570306B | P.H.Tapt Screw P 3x6ST                 |
| R816           | 1  | 1  | GU0556212  | 5.6KΩ ±5%, 1W                          | 1112           | 2 | 2 | 54050300R | T.L.Washer OR                          |
| R817           | 1  | 1  | GU0556212  | 5.6KΩ ±5%, 1W                          | 1115           | 2 | 2 | 288610701 | Sheet                                  |
| R818           | 1  | 1  | RT0556214  | 5.6KΩ ±5%, 1W                          | 1403           | 1 | 1 | 257710602 | Bearing                                |
|                |    |    |            |  | 1404           | 1 | 1 | 141511801 | Spacer                                 |
|                |    |    |            |  | 1405           | 2 | 2 | 51040306A | F.H.M. Screw F 3x6                     |
| C801           | 1  | 1  | EA2270631  | Electroly, 220μF, 63V                  | 1608           | 1 | 1 | 285326901 | Protector                              |
| C802           | 1  | 1  | EA1070509  | Electroly, 100μF, 50V                  | 1609           | 2 | 2 | 51570305B | P.H.Tapt Screw P 3x5ST                 |
| C803           | 1  | 1  | DF17170305 | Film, 0.01μF, 50V                      | 1615           | 2 | 2 | 287105302 | Cover                                  |
| C804           | 1  | 1  | EA2260359  | Electroly, 22μF, 35V                   | 1622           | 1 | 1 | 288612201 | Sticker                                |
| C805           | 1  | 1  | EA3370509  | Electroly, 330μF, 50V                  | M001           | 1 | 1 | IM1104201 | DC Meter, Signal Strength/Multi path   |
| C806           | 1  | 1  | EA4770169  | Electroly, 470μF, 16V                  | M002           | 1 | 1 | IM1104202 | DC Meter, FM Tuning                    |
| C807           | 1  | 1  | EA1060509  | Electroly, 10μF, 50V                   | C008           | 1 | 1 | EA3360109 | Electroly Cap., 33μF+50%,-10%, 10V     |
| C808           | 1  | 1  | EA4760169  | Electroly, 47μF, 16V                   |                |   |   |           |  |
| C809           | 1  | 1  | EA2270109  | Electroly, 220μF, 10V                  |                |   |   |           |  |
| C810           | 1  | 1  | DK1810351  | Ceramic, 0.01μF, 500V                  |                |   |   |           |  |
|                |    |    |            | <b>P800-CAPACITORS</b>                 |                |   |   |           |  |
|                |    |    |            |  |                |   |   |           |  |
| H801           | 1  | 1  | HT403302A  | Transistor, 2SD330 D.E                 |                |   |   |           | <b>PRE/TONE AMP.CIRCUIT BOARD-PE01</b> |
| H802           | 1  | 1  | HT313183A  | Transistor, 2SC1318 Q.R.P              | PE01           | 1 | 1 | YD2917002 | P.W. Board, Pre/Tone Amp. (Print Only) |
| H803           | 1  | 1  | HT309452A  | Transistor, 2SC945 Q.R                 |                |   |   |           | P.W. Board Assembly                    |
| H804           | 1  | 1  | HT403314A  | Transistor, 2SD331 C.D.E.F             |                |   |   |           |  |
| H805           | 1  | 1  | HT309452A  | Transistor, 2SC945 Q.R                 |                |   |   |           |  |
| H806           | 1  | 1  | HT313183A  | Transistor, 2SC1318 P.Q.R.             |                |   |   |           |  |
| H807           | 1  | 1  | HT313183A  | Transistor, 2SC1318 P.Q.R              |                |   |   |           |  |
| H808           | 1  | 1  | HD2001103  | Diode, DS131-B                         |                |   |   |           |  |

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| REF.<br>DESIG. | U | E | PART NO.  | DESCRIPTION  | REF<br>DESIG. | U | E | PART NO.  | DESCRIPTION                                    |
|----------------|---|---|-----------|--|---------------|---|---|-----------|--|
|                |   |   |           | PE01-RESISTORS<br>All resistors are $\pm 5\%$ and $\frac{1}{4}W$ , unless otherwise indicated. | RE68          | 1 | 1 | RT0522114 | 220 $\Omega$                                   |
| RE02           | 1 | 1 | RD0204001 | Variable, 200K $\Omega$ (B)  | RE69          | 1 | 1 | RT0510314 | 10K $\Omega$                                   |
| RE03           | 1 | 1 | RD0204001 | Variable, 200K $\Omega$ (B)  | RE70          | 1 | 1 | RT0510314 | 10K $\Omega$                                   |
| RE04           | 1 | 1 | RD0204001 | Variable, 200K $\Omega$ (B)  | RE71          | 1 | 1 | RT0522414 | 220K $\Omega$                                  |
| RE09           | 1 | 1 | RT0539114 | 390 $\Omega$   | RE72          | 1 | 1 | RT0522414 | 220K $\Omega$                                  |
| RE10           | 1 | 1 | RT0539114 | 390 $\Omega$   | RE73          | 1 | 1 | RT0510114 | 100 $\Omega$                                   |
| RE11           | 1 | 1 | RN0510514 | 1M $\Omega$  | RE74          | 1 | 1 | RC0000012 | 0 $\Omega$                                     |
| RE12           | 1 | 1 | RN0510514 | 1M $\Omega$  |               |   |   |           | PE01-CAPACITORS                                |
| RE13           | 1 | 1 | RN0547414 | 470K $\Omega$  | CE05          | 1 | 1 | DF1710552 | Film, 1 $\mu$ F $\pm 20\%$ , 250V              |
| RE14           | 1 | 1 | RN0547414 | 470K $\Omega$  | CE06          | 1 | 1 | DF1710552 | Film, 1 $\mu$ F $\pm 20\%$ , 250V              |
| RE15           | 1 | 1 | RT0510214 | 1K $\Omega$  | CE07          | 1 | 1 | DD1530001 | Ceramic, 30PF $\pm 5\%$ , 50V                  |
| RE16           | 1 | 1 | RT0510214 | 1K $\Omega$  | CE08          | 1 | 1 | DD1530001 | Ceramic, 30PF $\pm 5\%$ , 50V                  |
| RE17           | 1 | 1 | RT0551214 | 5.1K $\Omega$  | CE09          | 1 | 1 | EA1070109 | Electroly 100 $\mu$ F $\pm 50\%,-10\%,10\%$ V  |
| RE18           | 1 | 1 | RT0551214 | 5.1K $\Omega$  | CE10          | 1 | 1 | EA1070109 | Electroly, 100 $\mu$ F $\pm 50\%,-10\%,10\%$ V |
| RE19           | 1 | 1 | RT0522414 | 220K $\Omega$  | CE11          | 1 | 1 | EA1060359 | Electroly, 10 $\mu$ F, 35V                     |
| RE20           | 1 | 1 | RT0522414 | 220K $\Omega$  | CE12          | 1 | 1 | EA1060359 | Electroly, 10 $\mu$ F, 35V                     |
| RE21           | 1 | 1 | RC0000012 | 0 $\Omega$   | CE13          | 1 | 1 | EV3350356 | Electroly, 3.3 $\mu$ F $\pm 20\%$ , 35V        |
| RE22           | 1 | 1 | RC0000012 | 0 $\Omega$   | CE14          | 1 | 1 | EV3350356 | Electroly, 3.3 $\mu$ F $\pm 20\%$ , 35V        |
| RE23           | 1 | 1 | RT0527314 | 27K $\Omega$   | CE15          | 1 | 1 | DF1582205 | Film, 0.0082 $\mu$ F $\pm 5\%$ , 50V           |
| RE24           | 1 | 1 | RT0527314 | 27K $\Omega$   | CE16          | 1 | 1 | DF1582205 | Film, 0.0082 $\mu$ F $\pm 5\%$ , 50V           |
| RE25           | 1 | 1 | RT0527314 | 27K $\Omega$   | CE17          | 1 | 1 | DF1582205 | Film, 0.0082 $\mu$ F $\pm 5\%$ , 50V           |
| RE26           | 1 | 1 | RT0527314 | 27K $\Omega$   | CE18          | 1 | 1 | DF1582205 | Film, 0.0082 $\mu$ F $\pm 5\%$ , 50V           |
| RE29           | 1 | 1 | RT0527314 | 27K $\Omega$   | CE19          | 1 | 1 | DF1582205 | Film, 0.0082 $\mu$ F $\pm 5\%$ , 50V           |
| RE30           | 1 | 1 | RT0527314 | 27K $\Omega$   | CE20          | 1 | 1 | DF1582205 | Film, 0.0082 $\mu$ F $\pm 5\%$ , 50V           |
| RE31           | 1 | 1 | RT0520314 | 20K $\Omega$   | CE21          | 1 | 1 | DF1582205 | Film, 0.0082 $\mu$ F $\pm 5\%$ , 50V           |
| RE32           | 1 | 1 | RT0520314 | 20K $\Omega$   | CE22          | 1 | 1 | DF1582205 | Film, 0.0082 $\mu$ F $\pm 5\%$ , 50V           |
| RE33           | 1 | 1 | RT0510314 | 10K $\Omega$   | CE23          | 1 | 1 | DF1668205 | Film, 0.0068 $\mu$ F $\pm 10\%$ , 50V          |
| RE34           | 1 | 1 | RT0510314 | 10K $\Omega$   | CE24          | 1 | 1 | DF1668205 | Film, 0.0068 $\mu$ F $\pm 10\%$ , 50V          |
| RE35           | 1 | 1 | RT0510314 | 10K $\Omega$   | CE25          | 1 | 1 | DK1668101 | Ceramic, 680PF $\pm 10\%$ , 50V                |
| RE36           | 1 | 1 | RT0510314 | 10K $\Omega$   | CE26          | 1 | 1 | DK1668101 | Ceramic, 680PF $\pm 10\%$ , 50V                |
| RE37           | 1 | 1 | RT0510314 | 10K $\Omega$   | CE27          | 1 | 1 | DK1668101 | Ceramic, 680PF $\pm 10\%$ , 50V                |
| RE38           | 1 | 1 | RT0510314 | 10K $\Omega$   | CE28          | 1 | 1 | DK1668101 | Ceramic, 680PF $\pm 10\%$ , 50V                |
| RE39           | 1 | 1 | RT0510314 | 10K $\Omega$   | CE29          | 1 | 1 | DF1633205 | Film, 0.0033 $\mu$ F $\pm 10\%$ , 50V          |
| RE40           | 1 | 1 | RT0510314 | 10K $\Omega$   | CE30          | 1 | 1 | DF1633205 | Film, 0.0033 $\mu$ F $\pm 10\%$ , 50V          |
| RE41           | 1 | 1 | RT0547414 | 470K $\Omega$  | CE31          | 1 | 1 | DD1650001 | Ceramic, 50PF $\pm 10\%$ , 50V                 |
| RE42           | 1 | 1 | RT0547414 | 470K $\Omega$  | CE32          | 1 | 1 | DD1650001 | Ceramic, 50PF $\pm 10\%$ , 50V                 |
| RE43           | 1 | 1 | RC0000012 | 0 $\Omega$   | CE33          | 1 | 1 | EV1050256 | Electroly, 1 $\mu$ F $\pm 20\%$ , 25V          |
| RE44           | 1 | 1 | RC0000012 | 0 $\Omega$   | CE34          | 1 | 1 | EV1050256 | Electroly, 1 $\mu$ F $\pm 20\%$ , 25V          |
| RE45           | 1 | 1 | RT0522514 | 2.2M $\Omega$  | CE35          | 1 | 1 | EV3350356 | Electroly, 3.3 $\mu$ F $\pm 20\%$ , 35V        |
| RE46           | 1 | 1 | RT0522514 | 2.2M $\Omega$  | CE36          | 1 | 1 | EV3350356 | Electroly, 3.3 $\mu$ F $\pm 20\%$ , 35V        |
| RE47           | 1 | 1 | RT0522514 | 2.2M $\Omega$  | CE37          | 1 | 1 | EQ4750161 | Electroly, 4.7 $\mu$ F $\pm 30\%$ , 16V        |
| RE48           | 1 | 1 | RT0522514 | 2.2M $\Omega$  | CE38          | 1 | 1 | EQ4750161 | Electroly, 4.7 $\mu$ F $\pm 30\%$ , 16V        |
| RE49           | 1 | 1 | RT0522514 | 2.2M $\Omega$  | CE39          | 1 | 1 | EA2270359 | Electroly, 220 $\mu$ F $\pm 5\%,-10\%$ , 35V   |
| RE50           | 1 | 1 | RT0522514 | 2.2M $\Omega$  |               |   |   |           | PE01-SEMICONDUCTORS, PLUG & SWITCH             |
| RE51           | 1 | 1 | RT0510314 | 10K $\Omega$   | HE01          | 1 | 1 | HC1000121 | IC, BA312                                      |
| RE52           | 1 | 1 | RT0510314 | 10K $\Omega$   | HE02          | 1 | 1 | HC1000121 | IC, BA312                                      |
| RE53           | 1 | 1 | RT0510314 | 10K $\Omega$   | HE03          | 1 | 1 | HT313272A | Transistor, 2SC1327 S.T.                       |
| RE54           | 1 | 1 | RT0510314 | 10K $\Omega$   | HE04          | 1 | 1 | HT107212A | Transistor, 2SA721 S.T.                        |
| RE55           | 1 | 1 | RT0510314 | 10K $\Omega$   | HE05          | 1 | 1 | HT313272A | Transistor, 2SC1327 S.T.                       |
| RE56           | 1 | 1 | RT0510314 | 10K $\Omega$   | HE06          | 1 | 1 | HT107212A | Transistor, 2SA721 S.T.                        |
| RE57           | 1 | 1 | RC0000012 | 0 $\Omega$   | JE01          | 1 | 1 | YP0600028 | Plug   |
| RE58           | 1 | 1 | RC0000012 | 0 $\Omega$   | SE01          | 1 | 1 | SR1005007 | Rotaly Switch, Tone Mode                       |
| RE59           | 1 | 1 | RC0000012 | 0 $\Omega$   |               |   |   |           | DOLBY-FM, TAPE MON.CIRCUIT BOARD-PS01          |
| RE60           | 1 | 1 | RC0000012 | 0 $\Omega$   | PS01          | 1 | 1 | YD2917004 | P.W.Board, Dolby FM,Tape Mon. (Print Only)     |
| RE61           | 1 | 1 | RT0527214 | 2.7K $\Omega$  |               | 1 | 1 | ZZ2917004 | P.W. Board Assembly                            |
| RE62           | 1 | 1 | RT0510414 | 100K $\Omega$  |               | 1 | 1 | ZZ2917804 | P.W. Board Assembly                            |
| RE63           | 1 | 1 | RT0547414 | 470K $\Omega$  |               |   |   |           |  |
| RE64           | 1 | 1 | RT0547414 | 470K $\Omega$  |               |   |   |           |  |
| RE65           | 1 | 1 | RT0547314 | 47K $\Omega$   |               |   |   |           |  |
| RE66           | 1 | 1 | RT0547314 | 47K $\Omega$   |               |   |   |           |  |
| RE67           | 1 | 1 | RT0522114 | 220 $\Omega$   |               |   |   |           |  |

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| REF.<br>DESIG.                                | U | E         | PART NO.                              | DESCRIPTION                              | REF.<br>DESIG. | U | E         | PART NO.                              | DESCRIPTION                   |
|---|---|-----------|---------------------------------------|--|----------------|---|-----------|---------------------------------------|-------------------------------|
| <b>PS01-MISCELLANEOUS</b>                     |   |           |                                       |  |                |   |           |                                       |                               |
| RS01  | 1 | 1         | RT0510214                             | Resistor, 1KΩ ±5%, 1/4W                  | CT07           | 1 | 1         | DD1615101                             | Ceramic Cap., 150PF ±10%, 50V |
| RS02  | 1 | 1         | RT0510214                             | Resistor, 1KΩ ±5%, 1/4W                  | CT08           | 1 | 1         | DD1615101                             | Ceramic Cap., 150PF ±10%, 50V |
| RS03  | 1 | 1         | GJ0515101                             | Resistor, 150Ω ±5%, 1W                   | JT01           | 1 | 1         | YP1000113                             | Plug                          |
| RS04  | 1 | 1         | RT0510114                             | Resistor, 100Ω ±5%, 1/4W                 | JT21           |   |           |                                       |                               |
| RS05  | 1 | 1         | RT0522214                             | Resistor, 2.2KΩ ±5%, 1/4W                | S001           | 1 | 1         | SR1006014                             | <b>GENERAL MISCELLANEOUS</b>  |
| RS06  | 1 | 1         | RT0522214                             | Resistor, 2.2KΩ ±5%, 1/4W                | J009           | 1 | 1         | YJ0100081                             | Rotary Switch, Selector       |
| RS07  | 1 | 1         | RT0566214                             | Resistor, 5.6KΩ ±5%, 1/4W                | J010           | 1 | 1         | YJ0100098                             | Jack, Dubbing In              |
| RS08  | 1 | 1         | RT0510314                             | Resistor, 10KΩ ±5%, 1/4W                 | 0821           | 1 | 1         | 291616002                             | Jack, Dubbing Out             |
| RS09  | 1 | 1         | GD0522314                             | Resistor, 22KΩ ±5%, 1/4W                 | J011           | 1 | 1         | YJ0100098                             | Bracket                       |
| RS10  | 1 | 1         | RC0000012                             | Resistor, 0Ω                             | 0816           | 1 | 1         | 291716002                             | Jack, Headphone               |
| RS11  | 1 | 1         | RC0000012                             | Resistor, 0Ω                             | R005           | 1 | 1         | RH0254022                             | Bracket                       |
| RS12  | 1 | 1         | RT0556014                             | Resistor, 56Ω ±5%, 1/4W                  | J016           | 1 | 1         | YJ0600019                             | Variable Resist. 250KΩ (B)    |
| SS01  | 1 | 1         | SP0607001                             | Pushswitch, Dolby FM, Tape Mon           | R001           | 1 | 1         | RS0254007                             | Jack, Pre/Tone Amp.           |
| CS06  | 1 | DF1510205 | Film Cap., 1000PF ±5%, 50V            | PY01                                     | 1              | 1 | YD2916006 | <b>FUNCTION LAMP BOARD-PY01</b>       |                               |
| CS07  | 1 | DF1510205 | Film Cap., 1000PF ±5%, 50V            |  | 1              | 1 | ZZ2917106 | P.W. Board, Function Lamp(Print Only) |                               |
| CS01  | 1 | EA4750359 | Electroly Cap., 4.7μF +50%, -10%, 35V | MY01                                     |                |   |           | P.W. Board Assembly                   |                               |
| CS02  | 1 | EA4750359 | Electroly Cap., 4.7μF +50%, -10%, 35V | MY08                                     | 1              | 1 | 1N1008037 | <b>PY01- MISCELLANEOUS</b>            |                               |
| CS03  | 1 | EA4750359 | Electroly Cap., 4.7μF +50%, -10%, 35V | JY01                                     |                |   |           | Lamp, 8V, 0.04A                       |                               |
| CS04  | 1 | EA1060169 | Electroly Cap., 10μF 16V              | JY11                                     | 1              | 1 | YP1000113 | JS27                                  |                               |
| CS05  | 1 | EA1060169 | Electroly Cap., 10μF, 16V             |  |                |   |           | Plug                                  |                               |
| CS06  | 1 | DF6520201 | Film Cap., 2000PF ±5%, 50V            | PZ01                                     | 1              | 1 | YD2886016 | <b>DIAL LAMP BOARD-PZ01</b>           |                               |
| CS07  | 1 | DF6520201 | Film Cap., 2000PF ±5%, 50V            |  | 1              | 1 | ZZ2917116 | P.W. Board, Dial Lamp (Print Only)    |                               |
| CS08  | 1 | DF1615301 | Film Cap., 0.015μF ±10%, 50V          | MZ01                                     |                |   |           | P.W. Board Assembly                   |                               |
| CS09  | 1 | DD1610101 | Ceramic Cap., 100PF ±10%, 50V         | MZ05                                     | 1              | 1 | 1N1008036 | <b>PZ01-MISCELLANEOUS</b>             |                               |
| HS01  | 1 | HT309452A | Transistor, 2SC945 Q or R             | JZ01                                     |                |   |           | Lamp, 8V, 0.2A                        |                               |
| HS02  | 1 | HT309452A | Transistor, 2SC945 Q or R             | JZ10                                     | 1              | 1 | YJ0800017 | JS27                                  |                               |
| HS03  | 1 | HD1000105 | Diode, IN60                           | JZ11                                     |                |   |           | Socket                                |                               |
| HS04  | 1 | HD1000105 | Diode, IN60                           | JZ14                                     | 1              | 1 | YP1000113 |                                       |                               |
| JS01  |   | YP1000113 | Plug                                  |  |                |   |           | Plug                                  |                               |
| <b>FILTER,LOUDNESS CIRCUIT<br/>BOARD-PT01</b> |   |           |                                       |  |                |   |           |                                       |                               |
| PT01  | 1 | 1         | YD2917005                             | P.W. Board, Filter, Loudness(Print Only) | PZ01           | 1 | 1         | YD2886016                             | <b>GENERAL MISCELLANEOUS</b>  |
|   | 1 | 1         | ZZ2917005                             | P. W. Board Assembly                     |                | 1 | 1         | ZZ2917116                             | P.H. Tapt Screw P 3x6 ST      |
| <b>PT01-MISCELLANEOUS</b>                     |   |           |                                       |  |                |   |           |                                       |                               |
| RT01  | 1 | 1         | RT0510514                             | Resistor, 1MΩ ±5%, 1/4W                  | 0919           | 1 | 1         | 287127101                             | Reflector                     |
| RT02  | 1 | 1         | RT0510514                             | Resistor, 1MΩ ±5%, 1/4W                  | 0920           | 2 | 2         | 51570306B                             | Holder                        |
| RT03  | 1 | 1         | RT0510514                             | Resistor, 1MΩ ±5%, 1/4W                  | 0917           | 1 | 1         | 287127401                             | P.H. Tapt Screw P 3x6 ST      |
| RT04  | 1 | 1         | RT0510514                             | Resistor, 1MΩ ±5%, 1/4W                  | 0922           | 1 | 1         | 288627101                             | Holder                        |
| RT05  | 1 | 1         | RT0547214                             | Resistor, 4.7KΩ ±5%, 1/4W                | 0923           | 2 | 2         | 51570306B                             | P.H. Tapt Screw P 3x6 ST      |
| RT06  | 1 | 1         | RT0547214                             | Resistor, 4.7KΩ ±5%, 1/4W                | 0926           | 2 | 2         | 51100306A                             | B. H. M. Screw B 3x6          |
| RT07  | 1 | 1         | RT0547314                             | Resistor, 47KΩ ±5%, 1/4W                 | 0927           | 2 | 2         | 51480306A                             | B. H. M. Screw B 3x6          |
| RT08  | 1 | 1         | RT0547314                             | Resistor, 47KΩ ±5%, 1/4W                 | M004           | 1 | 1         | IN1008036                             | Lamp, Meter                   |
| RT09  | 1 | 1         | GJ0533102                             | Resistor, 330Ω ±5%, 2W                   | M005           | 1 | 1         | IN1008036                             | Lamp, Meter                   |
| RT10  | 1 | 1         | GJ0533102                             | Resistor, 330Ω ±5%, 2W                   | J017           | 1 | 1         | YJ0800019                             | Socket, Meter Lamp            |
| RT11  | 1 | 1         | GJ0515101                             | Resistor, 150Ω ±5%, 1W                   | J018           | 1 | 1         | YJ0800019                             | Socket, Meter Lamp            |
| RT12  | 1 | 1         | GJ0515101                             | Resistor, 150Ω ±5%, 1W                   | 1103           | 1 | 1         | 288627102                             | Holder, Lamp                  |
| RT13  | 1 | 1         | RT0515314                             | Resistor, 15KΩ ±5%, 1/4W                 | 1104           | 2 | 2         | 51570306B                             | P. H. Tapt Screw P 3 x 6 ST   |
| RT14  | 1 | 1         | RT0515314                             | Resistor, 15KΩ ±5%, 1/4W                 | 1022           | 1 | 1         | 288627401                             | Reflector                     |
| RT15  | 1 | 1         | RT0510414                             | Resistor, 100KΩ ±5%, 1/4W                |                |   |           |                                       |                               |
| RT16  | 1 | 1         | RT0510414                             | Resistor, 100KΩ ±5%, 1/4W                |                |   |           |                                       |                               |
| ST01  | 1 | 1         | SP0407001                             | Pushswitch                               |                |   |           |                                       |                               |
| CT01  | 1 | 1         | DF1647301                             | Film Cap., 0.047μF ±10%, 50V             |                |   |           |                                       |                               |
| CT02  | 1 | 1         | DF1647301                             | Film Cap., 0.047μF ±10%, 50V             |                |   |           |                                       |                               |
| CT03  | 1 | 1         | DF1668205                             | Film Cap., 0.0068μF ±10%, 50V            |                |   |           |                                       |                               |
| CT04  | 1 | 1         | DF1668205                             | Film Cap., 0.0068μF ±10%, 50V            |                |   |           |                                       |                               |
| CT05  | 1 | 1         | DF1633301                             | Film Cap., 0.033μF ±10%, 50V             |                |   |           |                                       |                               |
| CT06  | 1 | 1         | DF1633301                             | Film Cap., 0.033μF ±10%, 50V             |                |   |           |                                       |                               |

U ..... U.S.A.  
E ..... Europe

| REF. DESIG. | U | E | PART NO.  | DESCRIPTION                            | REF. DESIG. | U | E | PART NO.  | DESCRIPTION                  |
|-------------|---|---|-----------|--|-------------|---|---|-----------|------------------------------|
| 1026        | 1 | 1 | 288626251 | Pulley K                               | JU01        | 1 | 1 | YT0304007 | Terminal, 4P (AM/FM Ant.)    |
| 1032        | 2 | 2 | 51100306A | B. H. M. Screw B 3x6                   | JU02        | 1 | 1 | YP1000113 | Plug                         |
| 1033        | 2 | 2 | 54050300R | T. L. Washer OR                        | JU03        | 1 | 1 | YP1000113 | Plug                         |
| 1107        | 2 | 2 | 51480306A | B. H. M. Screw B3 x 6                  | JU04        | 1 | 1 | YP1000113 | Plug                         |
| 0934        | 1 | 1 | 287105102 | Guide                                  | JU05        | 1 | 1 | YP1000113 | Plug                         |
| 1002        | 1 | 1 | 288626252 | Pulley K                               | JU06        | 1 | 1 | YP1000113 | Plug                         |
| 1007        | 2 | 2 | 51100305A | B. H. M. Screw B 3x5                   | JU07        | 1 | 1 | YP1000113 | Plug                         |
| 1303        | 1 | 1 | 285310650 | Bearing K                              | 0605        | 1 | 1 | 291616005 | Bracket                      |
| 1308        | 1 | 1 | 51640410D | Set Screw C. P.                        | L001        | 1 | 1 | LF1120038 | <b>GENERAL MISCELLANEOUS</b> |
| 1309        | 1 | 1 | 54040402N | Spring Washer                          |             |   |   |           | Ant. Coil                    |
| 1310        | 1 | 1 | 53110403E | Hexagon Nut                            | 0705        | 1 | 1 | 281927103 | Holder                       |
| 0830        | 1 | 1 | 291512003 | Insulator                              | 0706        | 1 | 1 | 257816052 | Bracket K                    |
| 0831        | 1 | 1 | 291710903 | Shield                                 | 0711        | 2 | 2 | 51100310S | B. H. M. Screw B 3 x 10      |
| 0832        | 1 | 1 | 288912005 | Insulator                              | 0712        | 2 | 2 | 54050300R | T. L. Washer OR              |
| 0503        | 1 | 1 | 291716001 | Bracket                                | 0713        | 2 | 2 | 53110303E | Hexagon Nut                  |
| 0505        | 1 | 1 | 291716022 | Bracket                                | 0716        | 2 | 2 | 51100310S | B. H. M. Screw B 3 x 10      |
| 0513        | 1 | 1 | 145525903 | Bush, AC Cord                          | 0718        | 2 | 2 | 53110303E | Hexagon Nut                  |
| 0514        | 1 | 1 | 284906702 | Cap, AC Cord                           | R004        | 1 | 1 | RC1022512 | Resistor, 2.2MΩ ±10%, ½W     |
| 0516        | 1 | 1 | 282125901 | Bush                                   | 9336        | 1 | 1 | 62030039W | Lug                          |
| 0517        | 2 | 1 | 55060305S | T. R. Rivet                            | C003        | 1 | 1 | DK1710301 | Ceramic Cap., 0.01μF ±20%    |
| 0518        | 2 | 1 | 54050300R | T. L. Washer OR                        | 0531        | 1 | 1 | 62041760W | Lug                          |
| 0519        | 2 | 1 | 51060316A | P. H. M. Screw P 3 x 16                | C010        | 1 | 1 | DK1710301 | Ceramic Cap., 0.01μF ±20%    |
| 0520        | 2 | 1 | 53110303A | Hexagon Nut                            | 2705        | 1 | 1 | 62030039W | Lug                          |
| 0523        | 4 | 4 | 51100308S | B. H. M. Screw B 3 x 8                 | H005        | 1 | 1 | HD2001705 | Diode, S5188                 |
| 0524        | 4 | 4 | 53110303A | Hexagon Nut                            | 2217        | 1 | 1 | 51100320E | B. H. M. Screw B 3 x 20      |
| 0525        | 4 | 4 | 54050300R | T. L. Washer OR                        | 2218        | 1 | 1 | 53110301E | Hexagon Nut                  |
| 0530        | 1 | 1 | 54050400R | T. L. Washer OR                        | 2222        | 1 | 1 | 291726703 | Heat Sink                    |
| 0533        | 4 | 4 | 51100306S | B. H. M. Screw B 3 x 6                 | C004        | 1 | 1 | DF1710452 | Film Cap., 0.1μF ±20%, 200V  |
| 0534        | 4 | 4 | 53110303A | Hexagon Nut                            | C005        | 1 | 1 | DF1710452 | Film Cap., 0.1μF ±20%, 200V  |
| 0602        | 8 | 8 | 51100306S | B. H. M. Screw B 3x6                   | R002        | 1 | 1 | GJ0522202 | Resistor, 2.2KΩ±5%, 2W       |
| 0603        | 8 | 8 | 53110303A | Hexagon Nut                            | R003        | 1 | 1 | GJ0522202 | Resistor, 2.2KΩ±5%, 2W       |
| 0606        | 2 | 2 | 51100306S | B. H. M. Screw B 3 x 6                 | 2225        | 2 | 2 | 62030039W | Lug                          |
| 0616        | 1 | 1 | 145525903 | Bush, Ferrite-rod Ant.                 | J023        | 1 | 1 | YL0105011 | Terminal, 5P                 |
| 0620        | 3 | 3 | 51100306S | B. H. M. Screw B 3 x 6                 | C002        | 1 | 1 | DK1710301 | Ceramic Cap., 0.01μF ±20%    |
| F001        | 1 | 1 | FS1050004 | Fuse, 5A MGC UL                        | L002        | 1 | 1 | LC1332002 | Choke Coil 3.3μH             |
| G001        | 1 | 1 | BF1040003 | Printed Comp.                          | 2713        | 1 | 1 | 287100501 | Clamper                      |
| C009        | 1 | 1 | DF1722380 | Film Cap., 0.022μF±20%, 450V AC        | 2714        | 1 | 1 | 287100501 | Clamper                      |
| W001        | 1 | 1 | YC0240010 | AC Cord, Power Supply                  | 2805        | 2 | 2 | 287100501 | Clamper                      |
| J002        | 1 | 1 | YT0304008 | Terminal, Main Spkr                    | 1735        | 1 | 1 | 138200503 | Clamper                      |
| J003        | 1 | 1 | YT0304008 | Terminal, Remote Spkr                  | 1603        | 1 | 1 | 291730201 | Dial                         |
| J004        | 1 | 1 | YT0101003 | Terminal, Ground                       | 1606        | 1 | 1 | 285610701 | Sheet                        |
| J005        | 1 | 1 | YT0204008 | Terminal, 4P(Phono, Aux.)              | W009        | 1 | 1 | YB0007001 | Connective Cord              |
| J006        | 1 | 1 | YT0208006 | Terminal, 8P (Tape 1, Tape 2)          | W010        | 1 | 1 | YB0007001 | Connective Cord              |
| J007        | 1 | 1 | YT0204009 | Terminal, 4P (w/Switch)                | W011        | 1 | 1 | YB0027001 | Connective Cord              |
| J008        | 1 | 1 | YT0201009 | Terminal, IP (Quadrardial)             | J022        | 1 | 1 | YL0106004 | Terminal, Voltage Conversion |
| J019        | 1 | 1 | YJ0400048 | Plug, AC Outlet                        | 2503        | 1 | 1 | 289016008 | Bracket                      |
| J020        | 1 | 1 | YJ0400048 | Plug, AC Outlet                        | 2504        | 1 | 1 | 285412001 | Insulator                    |
| J021        | 1 | 1 | YJ0800012 | Holder, Fuse                           |             |   |   |           |                              |
| PU01        | 1 | 1 | YD2916007 | <b>ANTENNA/MUTING BOARD-PU01</b>       |             |   |   |           |                              |
|             | 1 | 1 | ZZ2917107 | P. W. Board, Ant. Muting(Print Only)   |             |   |   |           |                              |
|             |   |   |           | P. W. Board Assembly                   |             |   |   |           |                              |
| RU04        | 1 | 1 | RK0203032 | <b>PU01-MISCELLANEOUS</b>              |             |   |   |           |                              |
| RU05        | 1 | 1 | RK0503010 | Trimming Resist. 20KΩ(B)               |             |   |   |           |                              |
| LU01        | 1 | 1 | LB3007526 | Trimming Resist. 50KΩ(B)               |             |   |   |           |                              |
| LU02        | 1 | 1 | LC1154002 | Balun Coil, Choke Coil, 75Ω≈300Ω 150μH |             |   |   |           |                              |

U ..... U.S.A.  
E ..... Europe

| REF' DESIG. | U  | E         | PART NO.                       | DESCRIPTION                 | REF. DESIG. | U  | E         | PART NO.                           | DESCRIPTION                      |  |
|-------------|----|-----------|--------------------------------|-----------------------------|-------------|----|-----------|------------------------------------|----------------------------------|--|
| 2505        | 4  | 51100310A | B. H. M. Screw B 3 x 10        |                             | 2516        | 2  | 51570305B | P. H. Tapt Screw P 3 x 5 ST        |                                  |  |
| 2506        | 5  | 54060300R | T. L. Washer IR                |                             | 2528        | 1  | 51570306B | P. H. Tapt Screw P 3 x 6 ST        |                                  |  |
| PR01        | 1  | YD2871003 | <b>FUSE BOARD-PR01</b>         |                             | 2529        | 1  | 54050300R | T. L. Washer OR                    |                                  |  |
|             | 1  | ZZ2871803 | P. W. Board, Fuse (Print Only) |                             | 2603        | 1  | 291710550 | Chassis K                          |                                  |  |
|             |    |           | P. W. Board Assembly           |                             | 2616        | 6  | 288600502 | Clamper                            |                                  |  |
|             |    |           | <b>PR01-MISCELLANEOUS</b>      |                             | 2618        | 4  | 288600504 | Clamper                            |                                  |  |
| JR01        | 1  | YJ0800020 | Jack                           |                             | 2621        | 2  | 285310102 | Support                            |                                  |  |
| JR02        | 1  | YJ0800020 | Jack                           |                             | 2622        | 2  | 54040402N | Spring Washer                      |                                  |  |
| JR03        | 1  | YJ0800020 | Jack                           |                             | 2623        | 2  | 291616007 | Bracket                            |                                  |  |
| JR04        | 1  | YJ0800020 | Jack                           |                             | 2630        | 2  | 288925901 | Bush                               |                                  |  |
| JR05        | 1  | YJ0800020 | Jack                           |                             | 2707        | 3  | 51570306B | P. H. Tapt Screw P 3 x 6 ST        |                                  |  |
| JR06        | 1  | YJ0800020 | Jack                           |                             | 2710        | 1  | 121000501 | Clamper                            |                                  |  |
| JR07        | 1  | YJ0800020 | Jack                           |                             | 2711        | 1  | 54050300R | T. L. Washer OR                    |                                  |  |
| JR08        | 1  | YJ0800020 | Jack                           |                             | 2718        | 1  | 62030039W | Lug                                |                                  |  |
| JR09        | 1  | YP1000099 | Plug                           |                             | 2719        | 1  | 51570306B | P. H. Tapt Screw P 3 x 6 ST        |                                  |  |
| JR10        | 1  | YP1000099 | Plug                           |                             | 2721        | 1  | 62030039W | Lug                                |                                  |  |
| JR11        | 1  | YP1000099 | Plug                           |                             | 2722        | 1  | 51570306B | P. H. Tapt Screw P 3 x 6 ST        |                                  |  |
| JR12        | 1  | YP1000099 | Plug                           |                             | 2806        | 2  | 51570305B | P. H. Tapt Screw P 3 x 5 ST        |                                  |  |
| JR13        | 1  | YP1000099 | Plug                           |                             | L003        | 1  | TS6140105 | Transformer                        |                                  |  |
| JR14        | 1  | YP1000099 | Plug                           |                             | L003        | 1  | TS6140106 | Transformer                        |                                  |  |
| JR15        | 1  | YP1000099 | Plug                           |                             | C006        | 1  | EC1390551 | Electroly Cap., 13mF +50%,-10%,55V |                                  |  |
| JR16        | 1  | YP1000099 | Plug                           |                             | C007        | 1  | EC1390551 | Electroly Cap., 13mF +50%,-10%,55V |                                  |  |
| 2515        | 1  | 285416003 | Bracket                        |                             | W001        | 1  | YC0190003 | AC Cord                            |                                  |  |
| 2518        | 2  | 51100306S | B. H. M. Screw B 3x6           |                             | J024        | 1  | 1         | YJ0600031                          | Jack, 5P                         |  |
|             |    |           | <b>GENERAL MISCELLANEOUS</b>   |                             | J025        | 1  | 1         | YJ0600042                          | Jack, 5P                         |  |
| 0221        | 4  | 4         | 275905701                      | Leg                         | J026        | 1  | 1         | YJ0600030                          | Jack, 3P                         |  |
| 0222        | 4  | 4         | 51490410S                      | B. H. M. Screw F. S         | J027        | 1  | 1         | YJ0600032                          | Jack, 3P                         |  |
| 0510        | 6  | 6         | 51100306S                      | B. H. M. Screw B 3 x 6      | FR01        | 1  | FS1040006 | Fuse, 4A                           |                                  |  |
| 0907        | 10 | 10        | 51570306B                      | P. H. Tapt Screw P 3 x 6 ST | FR02        | 1  | FS1010007 | Fuse, 1A                           |                                  |  |
| 1830        | 4  | 4         | 51570306B                      | P. H. Tapt Screw P 3 x 6 ST | FR03        | 1  | FS1010007 | Fuse, 1A                           |                                  |  |
| 2008        | 8  | 8         | 51570306B                      | P. H. Tapt Screw P 3 x 6 ST | FR04        | 1  | FS1040006 | Fuse, 4A                           |                                  |  |
| 2120        | 1  | 1         | 291610903                      | Shield                      | 0115        | 4  | 4         | 52017039J                          | Bolt                             |  |
| 2121        | 3  | 3         | 51570306B                      | P. H. Tapt Screw P 3 x 6 ST | 0120        | 1  | 1         | 291605501                          | Collar                           |  |
| 2209        | 3  | 3         | 51100306S                      | B. H. M. Screw B 3 x 6      | 0203        | 1  | 1         | 291625701                          | Lid                              |  |
| 2210        | 1  | 1         | 51570306S                      | P. H. Tapt Screw P 3 x 6 ST | 0204        | 5  | 5         | 257711807                          | Spacer                           |  |
| 2214        | 4  | 4         | 51570406B                      | P. H. Tapt Screw P 4 x 6 ST | 0205        | 4  | 4         | 285605601                          | Buffer                           |  |
| 2215        | 1  | 1         | 291716004                      | Bracket                     | 0206        | 1  | 1         | 291716006                          | Bracket                          |  |
| 2216        | 1  | 1         | 51570406B                      | P. H. Tapt Screw P 4 x 6 ST | 0207        | 4  | 4         | 51480406S                          | B. H. M. Screw F.                |  |
| 2219        | 1  | 1         | 54050400R                      | T. L. Washer OR             | 0208        | 2  | 2         | 291705601                          | Buffer                           |  |
| 2223        | 2  | 2         | 51570308B                      | P. H. Tapt Screw P 3 x 8 ST | 0213        | 1  | 1         | 291625702                          | Lid                              |  |
| 2224        | 1  | 1         | 54050300R                      | T. L. Washer OR             | 0214        | 1  | 1         | 291512001                          | Insulator                        |  |
| 2228        | 4  | 4         | 51490512A                      | B. H. M. Screw FS           | 0215        | 1  | 250712001 | Insulator                          |                                  |  |
| 2229        | 4  | 4         | 53110501A                      | Hexagon Nut                 | 0216        | 10 | 10        | 51100406S                          | B. H. M. Screw B 4 x 6           |  |
| 2230        | 4  | 4         | 54020501A                      | Flat Washer P               | 0304        | 1  | 1         | 285015401                          | Knob, Slide Volume               |  |
|             |    |           |                                |                             | 0305        | 14 | 14        | 288615403                          | Knob, Pushswitch                 |  |
| 2233        | 1  | 1         | 281805603                      | Buffer                      | 0307        | 3  | 3         | 281815403                          | Knob                             |  |
| 2303        | 1  | 1         | 285610902                      | Shield                      | 0402        | 1  | 291726501 | Indicator, Name Plate              |                                  |  |
| 2304        | 4  | 4         | 285610102                      | Support                     | 0404        | 1  | 291726503 | Indicator, Name Plate              |                                  |  |
| 2305        | 1  | 1         | 281810107                      | Support                     | 0410        | 2  | 2         | 51100305S                          | B. H. M. Screw B 3 x 5           |  |
| 2306        | 5  | 5         | 51060304E                      | B. H. M. Screw P 3 x 4      | 0411        | 1  | 1         | 257886101                          | Label, UL Caution                |  |
| 2313        | 4  | 4         | 51100306S                      | B. H. M. Screw B 3 x 6      | 0412        | 1  | 1         | 257886102                          | Label, Do not remove cover.      |  |
| 2323        | 2  | 2         | 288616011                      | Bracket                     | 0413        | 1  | 1         | 257886103                          | Label, See Marking on bottom.    |  |
| 2324        | 2  | 2         | 288612009                      | Insulator                   | 0414        | 1  | 1         | 250626506                          | Indicator, Do not use as handle. |  |
| 2325        | 4  | 4         | 51570306B                      | P. H. Tapt Screw P 3 x 6 ST | 0421        | 1  | 951091102 | Label, Factory                     |                                  |  |
| 2403        | 4  | 4         | 288810102                      | Support                     | 0424        | 1  | 951110102 | Label, UL                          |                                  |  |
| 2413        | 2  | 2         | 288810102                      | Support                     | 0430        | 1  | 1         | 288686101                          | Label, On Power Transf.          |  |
| 2414        | 2  | 2         | 51100306S                      | B. H. M. Screw B 3 x 6      | 0819        | 1  | 1         | 289610701                          | Sheet                            |  |
| 2251        | 1  | 1         | 138200503                      | Clamper                     | 0823        | 2  | 2         | 289610701                          | Sheet                            |  |
| 2423        | 2  | 2         | 291610101                      | Support                     | 1410        | 1  | 1         | 285011202                          | Shaft                            |  |

U .... U.S.A.  
E .... Europe

| REF. DESIG. | U | E | PART NO.  | DESCRIPTION                     |
|-------------|---|---|-----------|---------------------------------|
| 1411        | 1 | 1 | 54040402N | Spring Washer                   |
| 1612        | 1 | 1 | 291526901 | Protector                       |
| 1613        | 2 | 2 | 51570305B | P. H. Tapt Screw P 3 x 5 ST     |
| 1618        | 1 | 1 | 286726901 | Protector                       |
| 1619        | 2 | 2 | 51100305S | B. H. M. Screw B 3 x 5          |
| 1624        | 1 | 1 | 281912005 | Insulator                       |
| 1803        | 1 | 1 | 289010903 | Shield                          |
| 1804        | 4 | 4 | 289205601 | Buffer                          |
| 1823        | 2 | 2 | 51100305S | B. H. M. Screw B 3 x 5          |
| 1910        | 1 | 1 | 56382540G | Eyelet                          |
| 2405        | 1 | 1 | 291610902 | Shield                          |
| 2406        | 4 | 4 | 51100304S | B. H. M. Screw B 3 x 4          |
| 2416        | 1 | 1 | 291610901 | Shield                          |
| 2417        | 2 | 2 | 51100304S | B. H. M. Screw B 3 x 4          |
| 2424        | 2 | 2 | 51100304S | B. H. M. Screw B 3 x 4          |
| 2902        | 1 |   | 291785101 | Instructions, Set               |
| 2903        |   | 1 | 291785121 | Instructions, Set               |
| 2909        | 1 |   | 291785601 | Schematic Diagram               |
| 2910        |   | 1 | 291785602 | Schematic Diagram               |
| 2914        | 1 | 1 | 281885108 | Instructions, Accessories       |
| 2917        | 1 | 1 | 281885104 | Instructions, Partitioner       |
| 2919        | 1 | 1 | 281885110 | Instructions, 4 CH              |
| 2924        | 1 | 1 | 257785401 | Guarantee Card                  |
| 2925        | 1 | 1 | 257785102 | Instructions                    |
| 2926        | 1 |   | 257781301 | Envelope                        |
| 2931        |   | 1 | 281881301 | Envelope                        |
| 3002        | 1 | 1 | 291780101 | Packing Case                    |
| 3003        |   | 1 | 291780111 | Packing Case                    |
| 3008        | 1 | 1 | 288680302 | Partitioner, Upper              |
| 3009        | 1 | 1 | 288680303 | Partitioner, Lower              |
| 3012        | 1 | 1 | 901483838 | Polyethylen Bag, Set            |
| 3014        | 1 | 1 | 901302501 | Polyethylen Bag, Printed Matter |
| 3015        | 1 | 1 | 901302501 | Polyethylen Bag, Accessories    |
| 3017        | 1 | 1 | 102980401 | Sleeve, AC Cord                 |
| 3018        |   | 1 | 956000004 | Hang Tag, Voltage Conversion    |
| 3019        | 2 | 2 | 273182101 | Silicagel                       |
| 3020        | 1 | 1 | 281905601 | Buffer                          |
| 3022        | 4 |   | 952281501 | Serial NO. Card                 |
| 3024        |   | 4 | 952301511 | Serial NO. Card                 |
| 3031        | 1 | 1 | ZA0200007 | Ext. Antenna, FM                |
|             |   |   | 291785501 | Service Manual                  |

**TECHNICAL SPECIFICATIONS****PRE AMPLIFIER SECTION**

|  |  |
|--|--|
| Phono Dynamic Range .....  | 98dB   |
| Note: Dynamic Range is the ratio in dB of phono overload (115mV) to equivalent input noise (1.45μV). |  |
| Input Sensitivity and Impedance .....  | Phono: 1.8mV, 47K ohms<br>High Level: 180mV, 50K ohms        |
| Pre-Out Level .....  | 1V   |
| Pre-Out Output Impedance .....   | 900 ohms   |
| Phono Frequency Response .....   | ±1dB, 30Hz to 15kHz (to RIAA curve)                          |
| Signal/Noise-Aux .....   | -82dB  |
| Tone Controls .....  | Treble: ±12dB at 15kHz<br>Bass: ±12dB at 50Hz                |
| Filters .....  | Hi Filter: 5kHz, 6dB/Octave<br>Low Filter: 100Hz, 6dB/Octave |
| Loudness Compensation .....  | 100Hz, +8dB<br>10kHz, +5dB                                   |

**AMPLIFIER SECTION**

|  |   |
|--|---|
| Headphones Output .....  | 0.5V(referenced to Rated Power Output)                    |
| Input Sensitivity for MAIN IN Front/Rear .....                                 | IV for Rated Power Output                                 |
| Rated Power Output (Continuous average power per channel, all channels driven) |   |
| Power Output .....   | 75 Watts, 4 ohms<br>75 Watts, 8 ohms<br>40 Watts, 16 ohms |
| Power Band .....   | 20Hz to 20kHz   |
| THD .....  | 0.25%   |
| Frequency Response .....   | ±1dB, 20Hz to 20kHz                                       |
| Damping Factor .....   | 60  |

**FM SECTION**

|                                       |   |
|---------------------------------------|---|
| Quieting Slope .....                  | 1.9μV: 30 dB Quieting<br>5μV: 35dB Quieting<br>10μV: 60dB Quieting<br>50μV: 70dB Quieting |
| Ultimate Quieting .....               | 1000μV: 70dB Quieting   |
| Selectivity (Alternate Channel) ..... | 80dB  |
| Capture Ratio .....                   | 1.5dB   |
| Muting Threshold .....                | Variable, 7μV to 70μV   |
| Stereo Separation .....               | 42dB at 1 kHz   |
| Total Harmonic Distortion .....       | Mono: 0.25%<br>Stereo: 0.35%  |
| Frequency Response .....              | ±1.0dB, 30Hz to 15 kHz  |
| Total Spurious Rejection .....        | Greater than 100dB  |
| Image Rejection .....                 | Greater than 100dB  |
| AM Suppression .....                  | Greater than 60dB   |
| IF Rejection .....                    | Greater than 100dB  |
| Antenna Impedance .....               | 75 or 300 ohms  |
| Quadraxial Output .....               | 340mV for 100% Modulation   |

## **AM SECTION**

|                       |                                  |
|-----------------------|----------------------------------|
| AM Sensitivity .....  | 20 $\mu$ V                       |
| Selectivity .....     | $\pm 20\text{kHz} > 45\text{dB}$ |
| AM Bandwidth .....    | -6dB, 7kHz                       |
| Image Rejection ..... | Greater than 60 dB               |

## **GENERAL**

|  |                               |
|--|-------------------------------|
| Power Requirements .....   | 220V~50/60 Hz                 |
| (This unit can be converted by a qualified technician to operate on 110/120/240V~50/60Hz.) |                               |
| Unit Dimensions .....  | Height: 5-3/8" (without feet) |
| Dimensions — Panel Width .....   | 17-5/16"-439mm                |
| — Panel Height .....   | 5-3/8"-137mm                  |
| — Depth .....  | 14-3/8"-366mm                 |
| Weight — Unit alone .....  | 37.9 lbs-17.7 Kg              |
| — Packed for Shipment .....  | 45.1 lbs-20.5 Kg              |

\* These specifications and exterior designs may be changed for improvement without advance notice.

## SERVICE INFORMATION FOR EUROPEAN MODEL

The information contained here in included the fuse assembly PR01, rear panel and main chassis component locations, voltage conversion, FTZ regulation, and schematic diagram.

For the circuit description, alignment method and repairing hints, refer to the original service manual.

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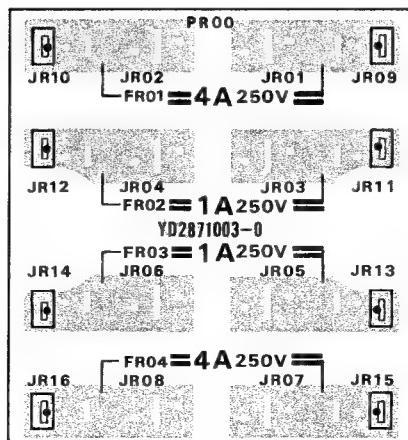


Figure 22. Fuse Assembly PR01  
Component Locations

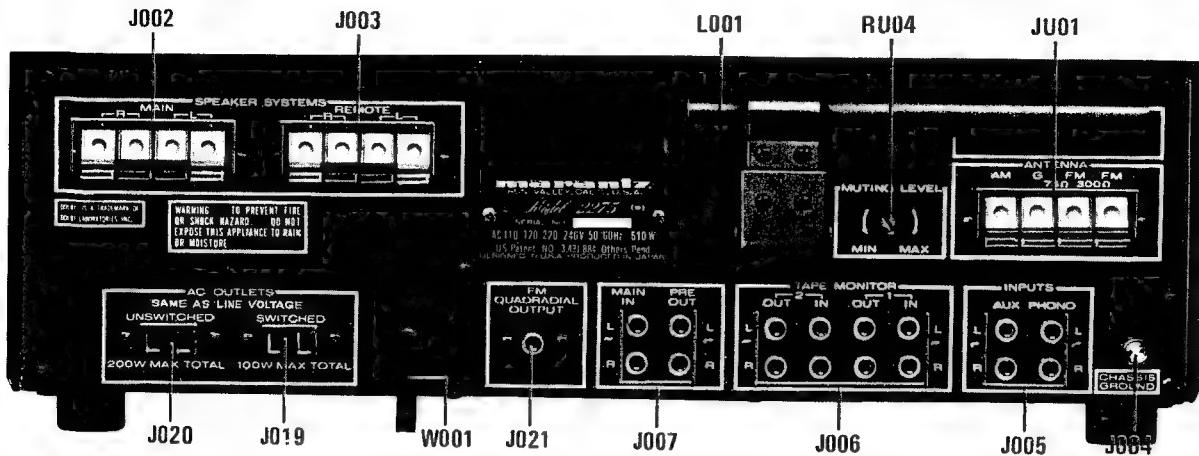


Figure 23. Rear Panel Jacks and Component Locations

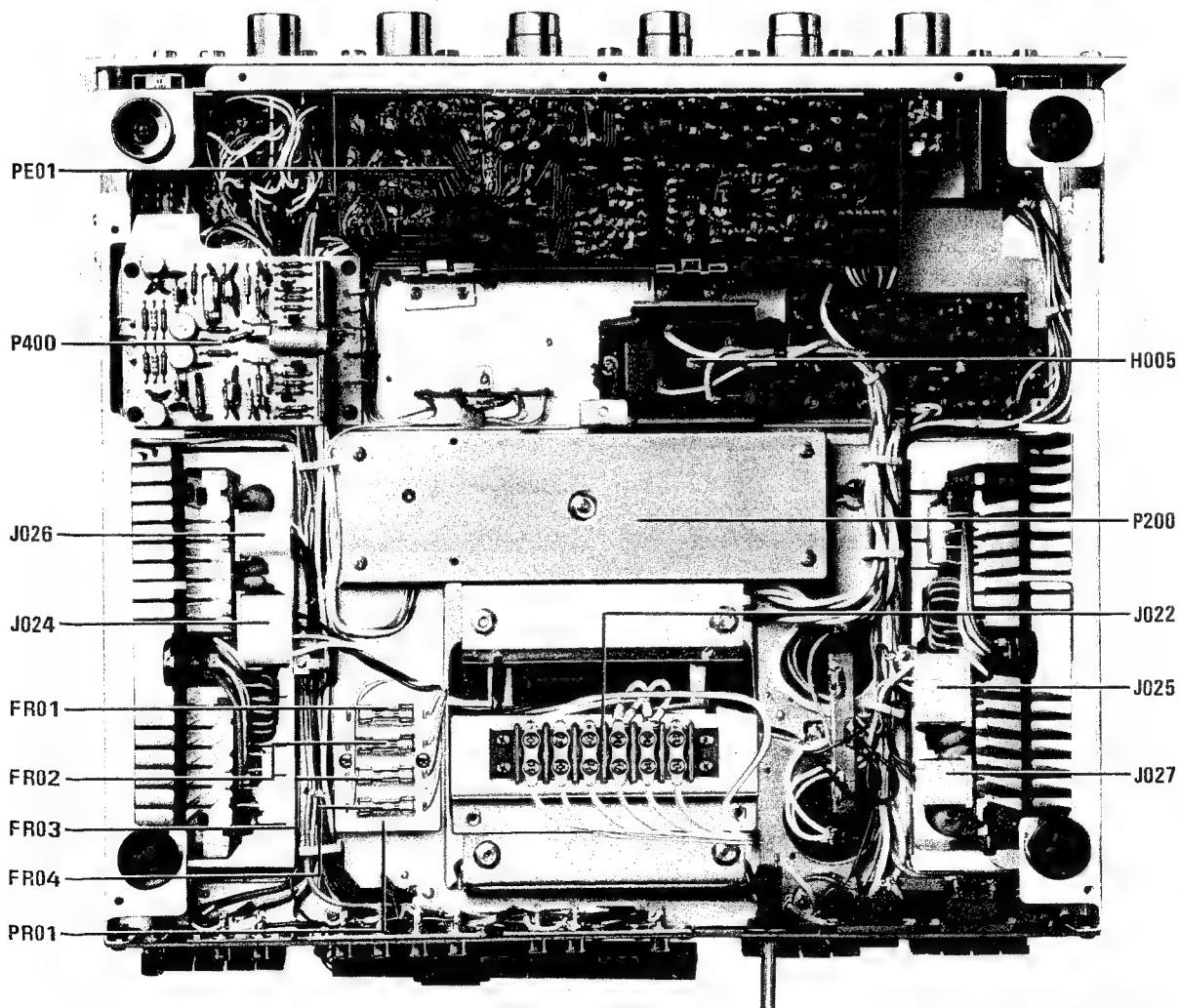


Figure 24. Main Chassis Component Locations (Bottom View)

### VOLTAGE CONVERSION

This model is equipped with a universal power transformer to permit operation at 110, 120, 220

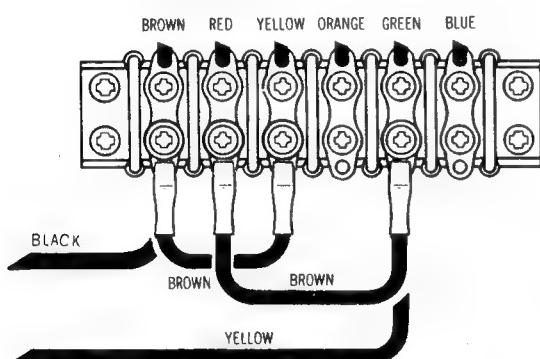
### VOLTAGE CONVERSION

This model is equipped with a universal power transformer to permit operation at 110, 120, 220 and 240 V AC 50 to 60 Hz.

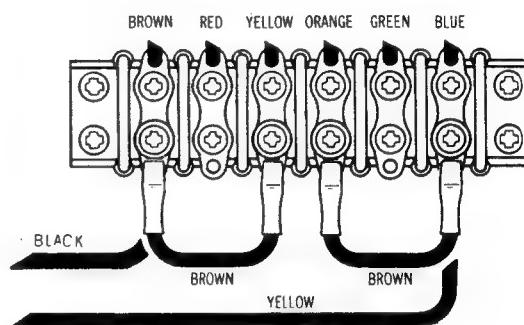
To convert the unit to the required voltage perform the following steps:

- (1) Remove the lid (top).
- (2) Change the jumper wires as illustrated below for the required AC voltage.

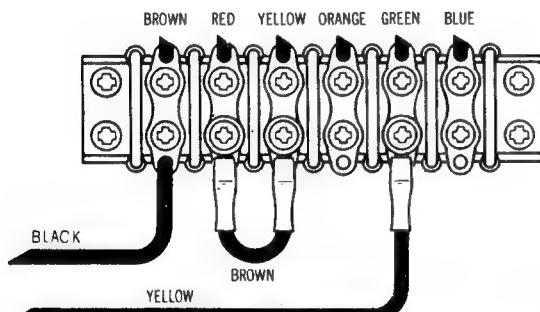
**CAUTION: DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE.**



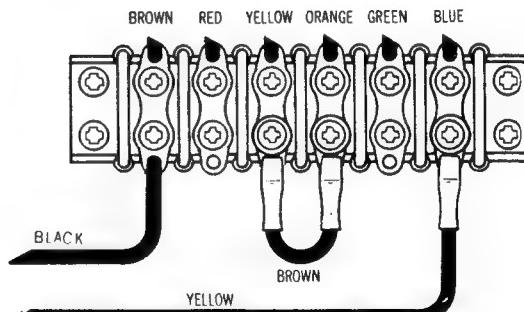
For 110V Operation



For 120V Operation



For 220V Operation



For 240V Operation

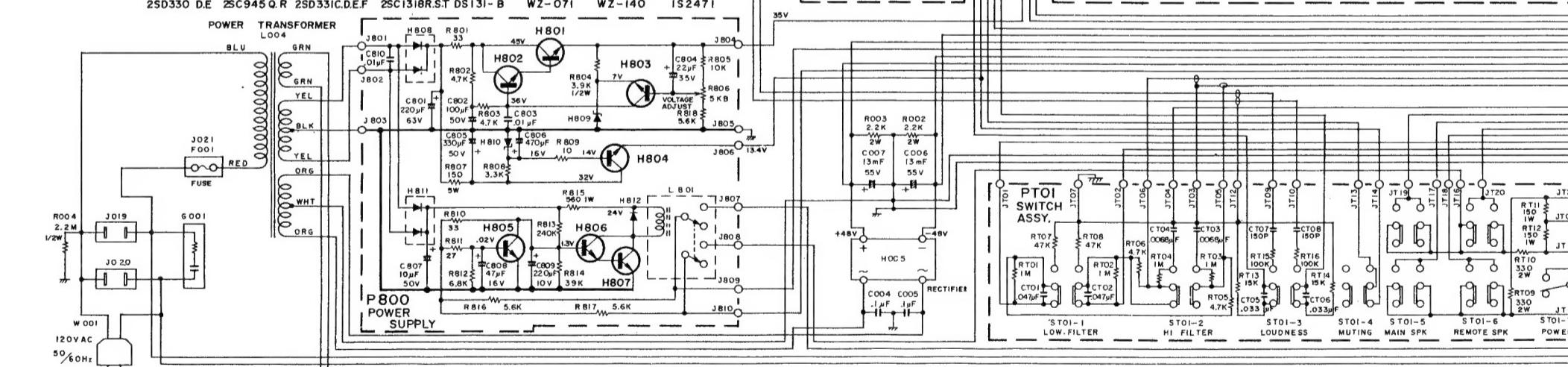
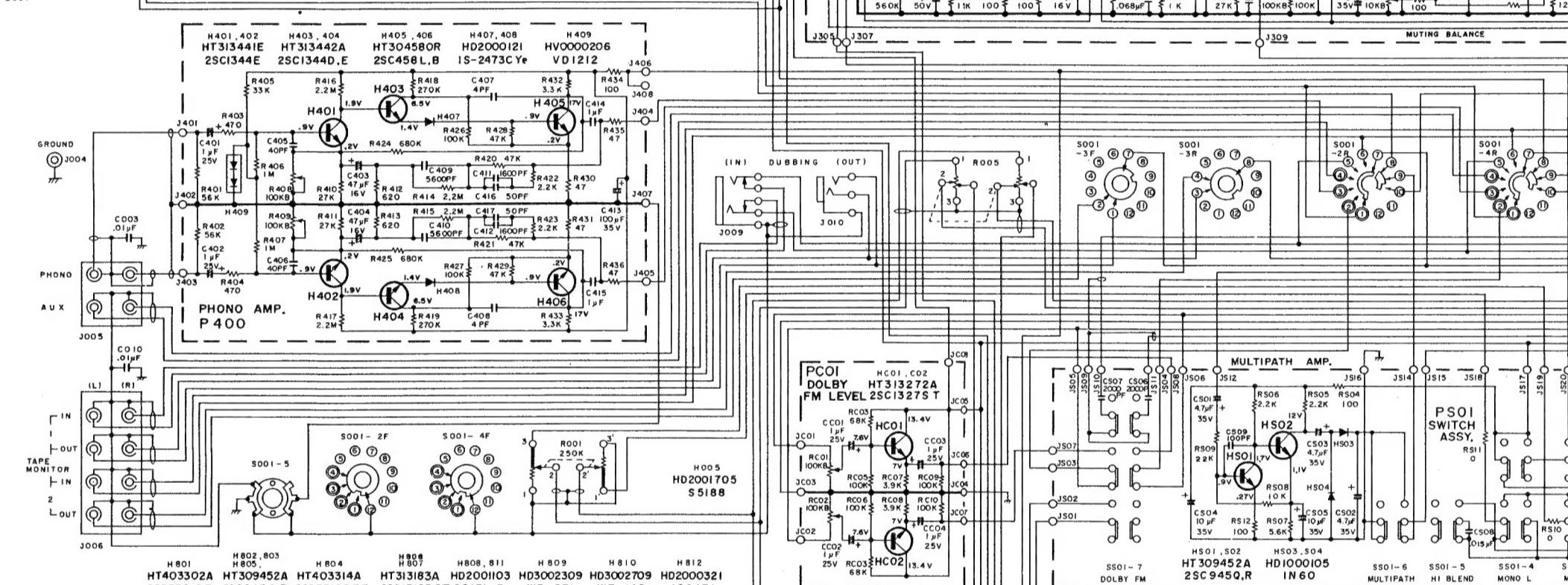
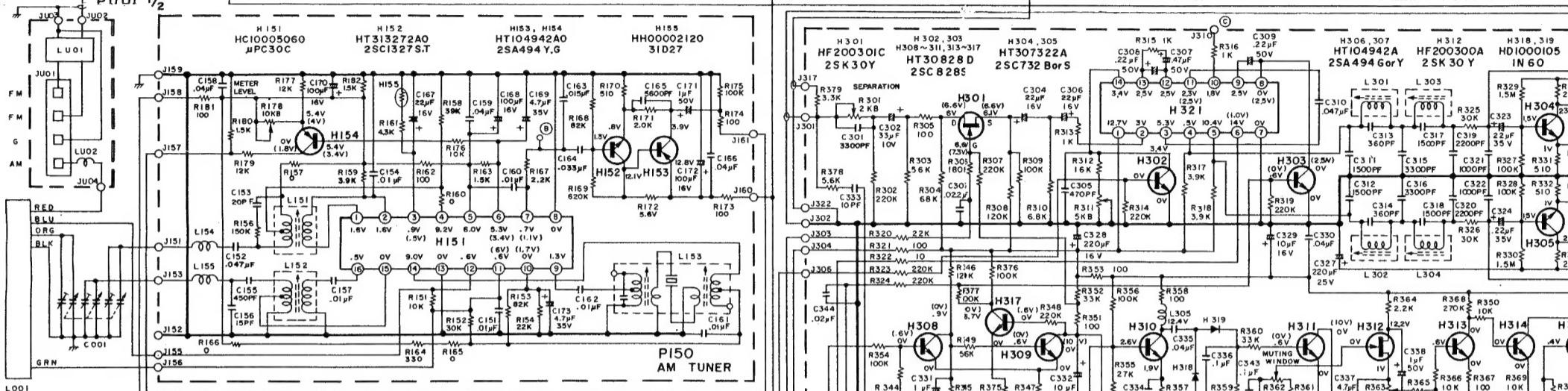
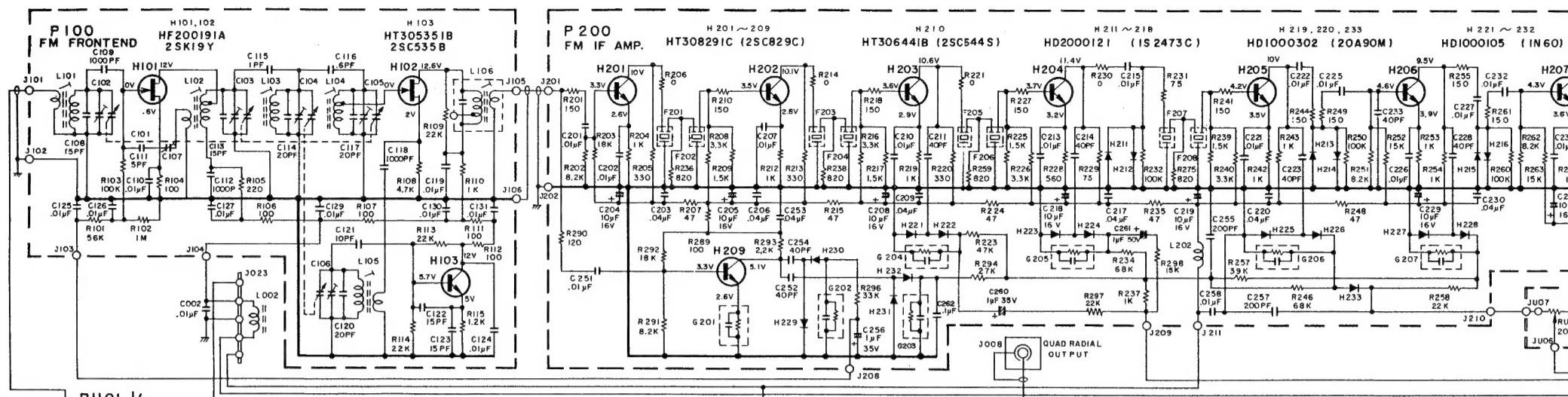
Figure 25. Voltage Conversion Chart

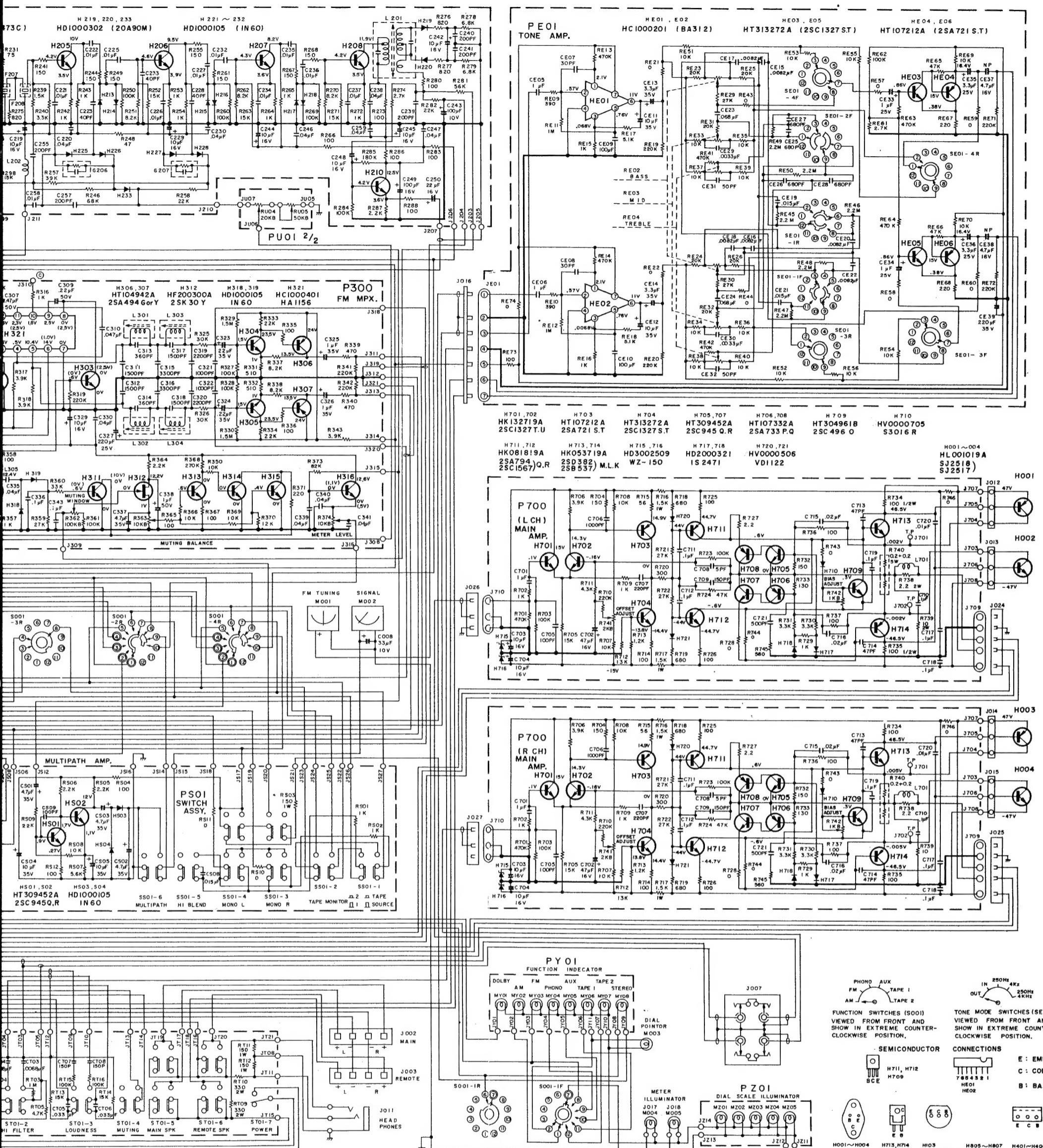
### FTZ REGULATION

Instruction for the use in the range other than specified in FTZ codes

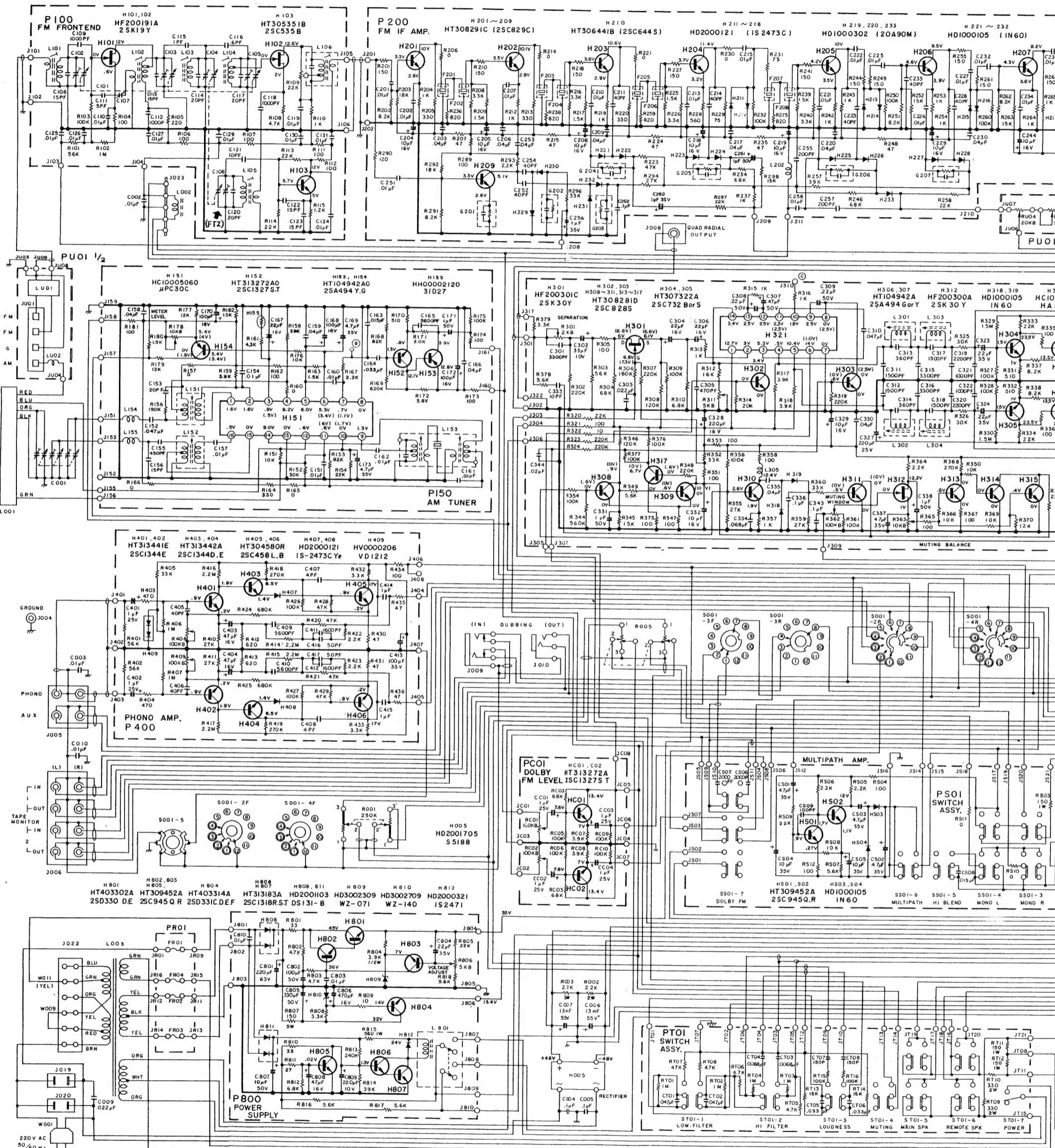
Achtung für die Leute, die in dem Gebiet wohnen, wo die FTZ-Bestimmungen vorherrschend sind.

Sollte das Gerät auch für Frequenzen ausserhalb des in den FTZ-Bestimmungen angegebenen Bereiches empfängerbereit sein, bitten wir, den Bereich durch Nachstellen des Kernes in der Oszillatospule (in der Abbildung mit "FTZ" gekennzeichnet) so zu korrigieren, dass er den Bestimmungen entspricht.

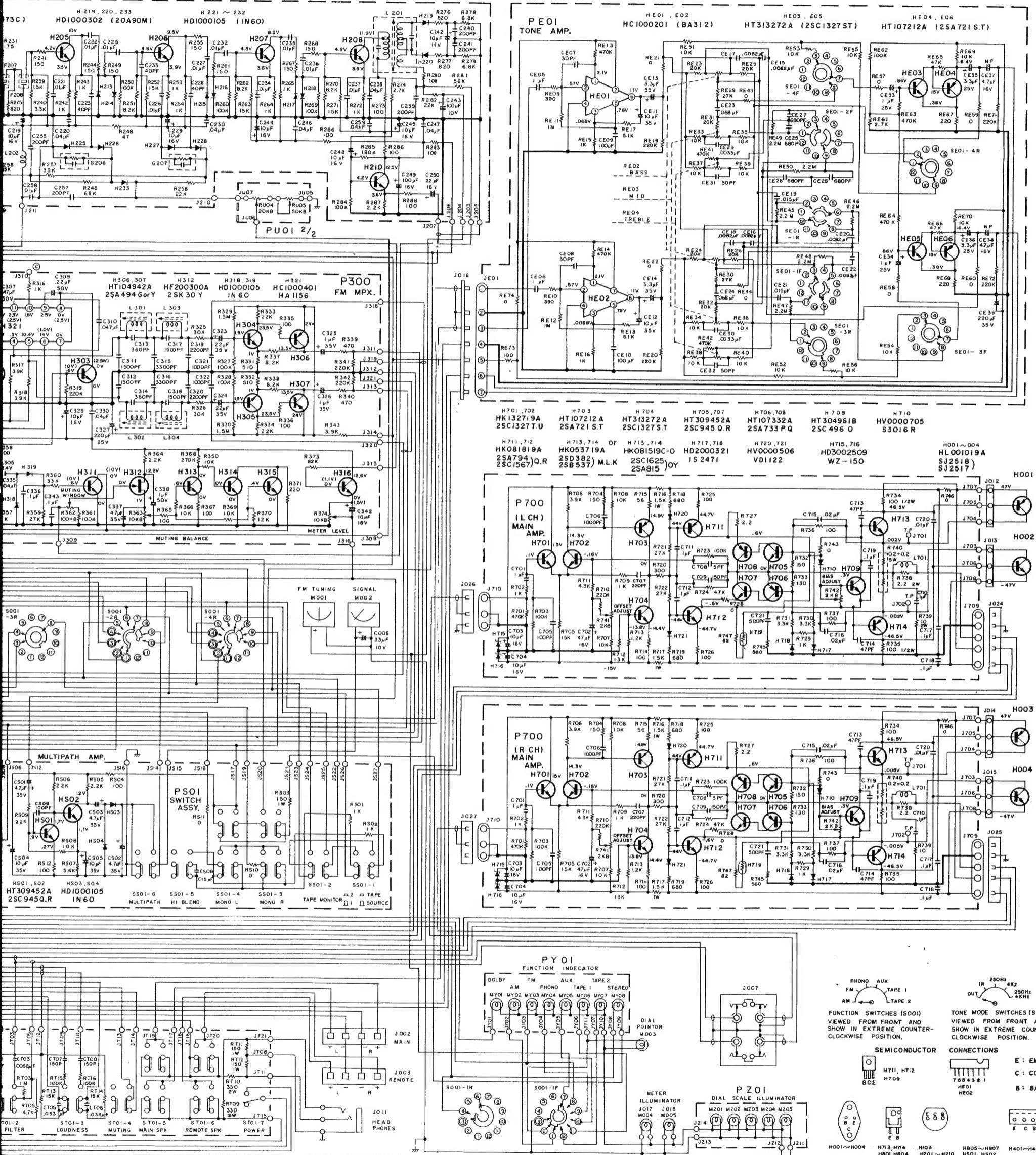




**Figure 26.** Schematic Diagram for U.S.A. Model



**Figure 27. Schematic Diagram for European Model**



|   |   |
|---|---|
| <p>FUNCTION SWITCHES (SO1)<br/>VIEWED FROM FRONT AND<br/>SHOW IN EXTREME COUNTER-<br/>CLOCKWISE POSITION.</p>   | <p>TONE MODE SWITCHES (SE01)<br/>VIEWED FROM FRONT AND<br/>SHOW IN EXTREME COUNTER-<br/>CLOCKWISE POSITION.</p> |
| <b>SEMICONDUCTOR</b>  |   |
| <p>H711, H712<br/>H709<br/>BCE</p>  | <b>CONNECTIONS</b><br><p>7 6 5 4 3 2 1<br/>HE01<br/>HE02</p>  |
| <p>H001~H004      H013, H014<br/>H020~H021      H020~H021<br/>H030~H031      H030~H031<br/>H031~H036      H031~H036<br/>H070~H070      H070~H070<br/>H001~H002      H001~H002</p> | <p>E : Emitter<br/>C : Collector<br/>B : Base</p>   |